

## 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: 2013

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:

**ASPO2009**

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

**08-Apr-2013 (2013-52)**

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	<b>Module title</b>						
	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 (109 ECTS credits)							
10-M-ANA-122-mo1	<b>Analysis</b>						
	ECTS	20	Duration	2 semester	Method of grading	numerical grade	Modul level undergraduate
	Courses	<p>This module comprises 3 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• 10-M-ANA-1-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 10-M-ANA-2-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 10-M-ANA-P-122: M (no information on SWS (weekly contact hours) and course language available)</li> </ul>					
	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><b>Assessment in module component 10-M-ANA-1-122: Analysis 1 Analysis 1</b></p> <ul style="list-style-type: none"> <li>• 8 ECTS, Method of grading: (not) successfully completed</li> <li>• written examination (approx. 90 to 180 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). Module will also be considered successfully completed if the module component was selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination was passed.</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul> <p><b>Assessment in module component 10-M-ANA-2-122: Analysis 2 Analysis 2</b></p> <ul style="list-style-type: none"> <li>• 8 ECTS, Method of grading: (not) successfully completed</li> <li>• written examination (approx. 90 to 180 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). Module will also be considered successfully completed if the module component was selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination was passed.</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul> <p><b>Assessment in module component 10-M-ANA-P-122: Examination in Analysis</b></p> <ul style="list-style-type: none"> <li>• 4 ECTS, Method of grading: numerical grade</li> <li>• oral examination of one candidate each (approx. 30 minutes); assessment will have reference to the contents of modules 10-M-ANA-1 and 10-M-ANA-2</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• Only after successful completion of module components: Successful completion of the written examination in any one of the other two module components is a prerequisite for participation in module component 10-M-ANA-P.</li> </ul>					
Bachelor's with 1 major Mathematics (2013)					JMU Würzburg • generated 26-Aug-2024 • exam. reg. data record 82 105 - - H 2013		page 3 / 60
Other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
Referred to in LPO I		§ 73 (1) 1. Mathematik Analysis					

10-M-ANW-122- mo1	<b>Applied Mathematics</b>							
	ECTS	20	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	<p>This module has 5 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> <li>10-M-NUM-1-122, 10-M-NUM-2-122, 10-M-STO-1-122, and 10-M-STO-2-122: V + Ü (no information on language and number of weekly contact hours available)</li> <li>10-M-ANW-P-112: M (no information on language and number of weekly contact hours available)</li> </ul>						
	Method of assessment	<p>This module has the following 5 assessment components. To pass this module, students must pass one out of the 4 assessment components that are first in the list below and the assessment component that is last in the list below.</p> <p><b>Assessment in module component 10-M-NUM-1-122:</b> Numerische Mathematik 1 (Numerical Mathematics 1), <b>in module component 10-M-NUM-2-122:</b> Numerische Mathematik 2 (Numerical Mathematics 2), <b>in module component 10-M-STO-1-122:</b> Stochastik 1 (Stochastics 1), and <b>in module component 10-M-STO-2-122:</b> Stochastik 2 (Stochastics 2) :</p> <ul style="list-style-type: none"> <li>8 ECTS credits, pass / fail</li> <li>written examination (approx. 90 to 180 minutes). If announced by the lecturer, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 30 minutes). The module component will also be considered successfully completed if it is selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination is passed.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Additional prerequisites: To qualify for admission to assessment, students must meet certain prerequisites. 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.</li> </ul> <p><b>Assessment in module component 10-M-ANW-P-112:</b> Prüfung Angewandte Mathematik (Assessment Applied Mathematics)</p> <ul style="list-style-type: none"> <li>4 ECTS credits, numerical grading</li> <li>oral examination of one candidate each (approx. 30 minutes). Assessment will have reference to the topics covered in the two module components selected by students.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Only after successful completion of module components: Module component 10-M-ANW-P can only be taken by students who passed the written examination in one of the other four module components.</li> </ul>						
	other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
Additional Information	Additional information on module duration: 1 to 2 semesters.							

10-M-LNA-122-mo1	<b>Linear Algebra</b>						
ECTS	20	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
Courses		<p>This module comprises 3 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• 10-M-LNA-1-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 10-M-LNA-2-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 10-M-LNA-P-122: M (no information on SWS (weekly contact hours) and course language available)</li> </ul>					
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><b>Assessment in module component 10-M-LNA-1-122:</b> Linear Algebra 1 Linear Algebra 1</p> <ul style="list-style-type: none"> <li>• 8 ECTS, Method of grading: (not) successfully completed</li> <li>• written examination (approx. 90 to 180 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). Module will also be considered successfully completed if the module component was selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination was passed.</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul> <p><b>Assessment in module component 10-M-LNA-2-122:</b> Linear Algebra 2 Linear Algebra 2</p> <ul style="list-style-type: none"> <li>• 8 ECTS, Method of grading: (not) successfully completed</li> <li>• written examination (approx. 90 to 180 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). Module will also be considered successfully completed if the module component was selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination was passed.</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul> <p><b>Assessment in module component 10-M-LNA-P-122:</b> Examination in Linear Algebra</p> <ul style="list-style-type: none"> <li>• 4 ECTS, Method of grading: numerical grade</li> <li>• oral examination of one candidate each (approx. 30 minutes); assessment will have reference to the contents of modules 10-M-LNA-1 and 10-M-LNA-2</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• Only after successful completion of module components: Successful completion of the written examination in any one of the other two module components is a prerequisite for participation in module component 10-M-LNA-P.</li> </ul>					
other prerequisites		By way of exception, additional prerequisites are listed in the section on assessments.					
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10-M-REI-122-m01	<b>Pure Mathematics</b>							
	ECTS	20	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	<p>This module has 7 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> <li>10-M-ALG-1-122, 10-M-DGE-1-122, 10-M-DGL-1-122, 10-M-FTH-1-122, 10-M-GAN-1-122, and 10-M-PGE-1-122: V + Ü (no information on language and number of weekly contact hours available)</li> <li>10-M-REI-P-122: M (no information on language and number of weekly contact hours available)</li> </ul>						
	Method of assessment	<p>This module has the following 7 assessment components. To pass this module, students must select two out of the 6 assessment components that are first in the list below and pass one of them, furthermore they must pass the assessment component that is last in the list below.</p> <p><b>Assessment in module component 10-M-ALG-1-122:</b> Einführung in die Algebra (Introduction to Algebra), <b>in module component 10-M-DGE-1-122:</b> Einführung in die Differentialgeometrie (Introduction to Differential Geometry), <b>in module component 10-M-DGL-1-122:</b> Gewöhnliche Differentialgleichungen (Ordinary Differential Equations), <b>in module component 10-M-FTH-1-122:</b> Einführung in die Funktionentheorie (Introduction to Complex Analysis), <b>in module component 10-M-GAN-1-122:</b> Geometrische Analysis (Geometric Analysis), and <b>in module component 10-M-PGE-1-122:</b> Einführung in die Projektive Geometrie (Introduction to Projective Geometry):</p> <ul style="list-style-type: none"> <li>8 ECTS credits, pass / fail</li> <li>written examination (approx. 90 to 180 minutes). If announced by the lecturer, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 30 minutes). The module component will also be considered successfully completed if it is selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination is passed.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Additional prerequisites: To qualify for admission to assessment, students must meet certain prerequisites. 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.</li> </ul> <p><b>Assessment in module component 10-M-REI-P-122:</b> Prüfung Reine Mathematik (Assessment Pure Mathematics)</p> <ul style="list-style-type: none"> <li>4 ECTS credits, numerical grading</li> <li>oral examination of one candidate each (approx. 30 minutes). Assessment will have reference to the topics covered in the two module components selected by students.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Only after successful completion of module components: Module component 10-M-REI-P can only be taken by students who passed the written examination in one of the other six module components.</li> </ul>						
	other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
Additional Information	Additional information on module duration: 1 to 2 semesters.							

10-M-SPZ-122-mo1	<b>Advanced Mathematics</b>						
ECTS	20	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
Courses	<p>This module has 15 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> <li>10-M-NUM-1-122, 10-M-NUM-2-122, 10-M-STO-1-122, 10-M-STO-2-122, 10-M-ALG-1-122, 10-M-DGE-1-122, 10-M-DGL-1-122, 10-M-FTH-1-122, 10-M-GAN-1-122, 10-M-PGE-1-122, 10-M-DIM-1-122, 10-M-FAN-1-122, 10-M-ORS-1-122, and 10-M-ZTH-1-122: V + Ü (no information on language and number of weekly contact hours available)</li> <li>10-M-SPZ-P-122: M (no information on language and number of weekly contact hours available)</li> </ul>						
Method of assessment	<p>This module has the following 15 assessment components. To pass this module, students must pass one out of the 14 assessment components that are first in the list below and the assessment component that is last in the list below.</p> <p><b>Assessment in module component 10-M-NUM-1-122:</b> Numerische Mathematik 1 (Numerical Mathematics 1), <b>in module component 10-M-NUM-2-122:</b> Numerische Mathematik 2 (Numerical Mathematics 2), <b>in module component 10-M-STO-1-122:</b> Stochastik 1 (Stochastics 1), <b>in module component 10-M-STO-2-122:</b> Stochastik 2 (Stochastics 2), <b>in module component 10-M-ALG-1-122:</b> Einführung in die Algebra (Introduction to Algebra), <b>in module component 10-M-DGE-1-122:</b> Einführung in die Differentialgeometrie (Introduction to Differential Geometry), <b>in module component 10-M-DGL-1-122:</b> Gewöhnliche Differentialgleichungen (Ordinary Differential Equations), <b>in module component 10-M-FTH-1-122:</b> Einführung in die Funktionentheorie (Introduction to Complex Analysis), <b>in module component 10-M-GAN-1-122:</b> Geometrische Analysis (Geometric Analysis), <b>in module component 10-M-PGE-1-122:</b> Einführung in die Projektive Geometrie (Introduction to Projective Geometry), <b>in module component 10-M-DIM-1-122:</b> Einführung in die Diskrete Mathematik (Introduction to Discrete Mathematics), <b>in module component 10-M-FAN-1-122:</b> Einführung in die Funktionalanalysis (Introduction to Functional Analysis), <b>in module component 10-M-ORS-1-122:</b> Operations Research, and <b>in module component 10-M-ZTH-1-122:</b> Einführung in die Zahlentheorie (Introduction to Number Theory) :</p> <ul style="list-style-type: none"> <li>8 ECTS credits, pass / fail</li> <li>written examination (approx. 90 to 180 minutes). If announced by the lecturer, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 30 minutes). The module component will also be considered successfully completed if it is selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination is passed.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Additional prerequisites: To qualify for admission to assessment, students must meet certain prerequisites. 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.</li> </ul> <p><b>Assessment in module component 10-M-ERG-P-122:</b> Prüfung in Ergänzung Mathematik (Assessment in Selected Topics from Mathematics)</p> <ul style="list-style-type: none"> <li>2 ECTS credits, numerical grading</li> <li>oral examination of one candidate each (approx. 30 minutes). Assessment will have reference to the topics covered in the module component selected by students.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Only after successful completion of module components: Module component 10-M-ERG-P can only be taken by students who passed the written examination in one of the other 14 module components.</li> </ul>						
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
Additional Information	Additional information on module duration: 1 to 2 semesters.						
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10-M-VAN-122-m01	<b>Advanced Analysis</b>							
	ECTS	9	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 to 180 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.							
<b>Compulsory Electives (40 ECTS credits)</b>								
<b>Compulsory Electives Mathematics</b>								
10-M-EFM-122-m01	<b>Introduction to Stochastic Financial Mathematics</b>							
	ECTS	9	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 to 180 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.							



10-M-ERG-122-mo1	<b>Selected Topics from Mathematics</b>							
ECTS	10	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate	
Courses	<p>This module has 15 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> <li>10-M-NUM-1-122, 10-M-NUM-2-122, 10-M-STO-1-122, 10-M-STO-2-122, 10-M-ALG-1-122, 10-M-DGE-1-122, 10-M-DGL-1-122, 10-M-FTH-1-122, 10-M-GAN-1-122, 10-M-PGE-1-122, 10-M-DIM-1-122, 10-M-FAN-1-122, 10-M-ORS-1-122, and 10-M-ZTH-1-122: V + Ü (no information on language and number of weekly contact hours available)</li> <li>10-M-ERG-P-122: M (no information on language and number of weekly contact hours available)</li> </ul>							
Method of assessment	<p>This module has the following 15 assessment components. To pass this module, students must pass one out of the 14 assessment components that are first in the list below and the assessment component that is last in the list below.</p> <p><b>Assessment in module component 10-M-NUM-1-122:</b> Numerische Mathematik 1 (Numerical Mathematics 1), <b>in module component 10-M-NUM-2-122:</b> Numerische Mathematik 2 (Numerical Mathematics 2), <b>in module component 10-M-STO-1-122:</b> Stochastik 1 (Stochastics 1), <b>in module component 10-M-STO-2-122:</b> Stochastik 2 (Stochastics 2), <b>in module component 10-M-ALG-1-122:</b> Einführung in die Algebra (Introduction to Algebra), <b>in module component 10-M-DGE-1-122:</b> Einführung in die Differentialgeometrie (Introduction to Differential Geometry), <b>in module component 10-M-DGL-1-122:</b> Gewöhnliche Differentialgleichungen (Ordinary Differential Equations), <b>in module component 10-M-FTH-1-122:</b> Einführung in die Funktionentheorie (Introduction to Complex Analysis), <b>in module component 10-M-GAN-1-122:</b> Geometrische Analysis (Geometric Analysis), <b>in module component 10-M-PGE-1-122:</b> Einführung in die Projektive Geometrie (Introduction to Projective Geometry), <b>in module component 10-M-DIM-1-122:</b> Einführung in die Diskrete Mathematik (Introduction to Discrete Mathematics), <b>in module component 10-M-FAN-1-122:</b> Einführung in die Funktionalanalysis (Introduction to Functional Analysis), <b>in module component 10-M-ORS-1-122:</b> Operations Research, and <b>in module component 10-M-ZTH-1-122:</b> Einführung in die Zahlentheorie (Introduction to Number Theory) :</p> <ul style="list-style-type: none"> <li>8 ECTS credits, pass / fail</li> <li>written examination (approx. 90 to 180 minutes). If announced by the lecturer, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 30 minutes). The module component will also be considered successfully completed if it is selected as subject of the oral examination covering several modules (separate module component for assessment purposes (Prüfungsteilmodul)) and this examination is passed.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Additional prerequisites: To qualify for admission to assessment, students must meet certain prerequisites. 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.</li> </ul> <p><b>Assessment in module component 10-M-SPZ-P-122:</b> Prüfung in Spezialisierung Mathematik (Assessment in Advanced Mathematics)</p> <ul style="list-style-type: none"> <li>4 ECTS credits, numerical grading</li> <li>oral examination of one candidate each (approx. 30 minutes). Assessment will have reference to the topics covered in the two module components selected by students.</li> <li>Language of assessment: German; English if agreed upon with examiner(s)</li> <li>Only after successful completion of module components: Module component 10-M-SPZ-P can only be taken by students who passed the written examination in one of the other 14 module components.</li> </ul>							
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.							
Additional Information	Additional information on module duration: 1 to 2 semesters.							
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10-M-MKG-122- mo1	<b>Mathematics in Culture and Society</b>							
	ECTS	8	Duration	2 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	<p>This module has 4 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> <li>• 10-M-GES-1-122, 10-M-MS-1-122, and 10-M-SCH-1-122: V + Ü (no information on language and number of weekly contact hours available)</li> <li>• 10-M-PRO-1-122: S (no information on language and number of weekly contact hours available)</li> </ul>						
	Method of assessment	<p>This module has the following 4 assessment components. To pass the module as a whole students must pass two of the four assessment components.</p> <p><b>Assessment in module component 10-M-GES-1-122:</b> Ausgewählte Kapitel aus der Geschichte der Mathematik (Selected Topics from the History of Mathematics), <b>in module component 10-M-MS-1-122:</b> Mathematisches Schreiben (Mathematical Writing), and <b>in module component 10-M-SCH-1-122:</b> Schulmathematik vom höheren Standpunkt (School Mathematics from a Higher Perspective) :</p> <ul style="list-style-type: none"> <li>• 4 ECTS credits, pass / fail</li> <li>• project assignments (type and expenditure of time to be specified by the lecturer at the beginning of the course)</li> <li>• Assessment will be offered in the semester in which the course is offered and in the subsequent semester.</li> <li>• Language of assessment: German; English if agreed upon with examiner(s)</li> <li>• Additional prerequisites: To qualify for admission to assessment, students must meet certain prerequisites. 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.</li> </ul> <p><b>Assessment in module component 10-M-PRO-1-122:</b> Proseminar Mathematik (Proseminar Mathematics)</p> <ul style="list-style-type: none"> <li>• 4 ECTS credits, pass / fail</li> <li>• talk (approx. 60 to 180 minutes)</li> <li>• Assessment will be offered in the semester in which the course is offered and in the subsequent semester.</li> <li>• Language of assessment: German; English if agreed upon with examiner(s)</li> <li>• Additional prerequisites: To qualify for admission to assessment, students must meet certain prerequisites. 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.</li> </ul>						
	other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
Additional Information	Additional information on module duration: 1 to 2 semesters.							

10-M-SE2-122-m01	<b>Additional Seminar in Mathematics</b>							
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	talk (approx. 60 to 180 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.							

**Application-oriented Subject (30 ECTS credits)**

Students must take one of the following application-oriented subjects, each with the specified mandatory courses and/or mandatory electives: Biologie (Biology), Chemie (Chemistry), Geographie (Geography), Informatik (Computer Science), Philosophie (Philosophy), Physik (Physics), Wirtschaftswissenschaft (Business Management and Economics).

**Application-oriented Subject Biology (40 ECTS credits)****Application-oriented Subject Biology Compulsory Electives (14 ECTS credits)**

07-1A1ZO-NF-102-m01	<b>From Cells to Organisms for minor field of study</b>							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	<p>This module has 4 components; information on courses listed separately for each component.</p> <ul style="list-style-type: none"> <li>07-1A1ZO-3P-072, 07-1A1ZO-4T-072, and 07-1A1ZO-2E-102: V + Ü (no information on language and number of weekly contact hours available)</li> <li>07-1A1ZO-NF-1Z-082: V (no information on language and number of weekly contact hours available)</li> </ul>						
	Method of assessment	<p>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.</p> <p><b>Assessment in module component 07-1A1ZO-3P-072: Das Pflanzenreich (The Plant Kingdom)</b></p> <ul style="list-style-type: none"> <li>4 ECTS credits, numerical grading</li> <li>written examination (approx. 60 minutes)</li> <li>Additional prerequisites: admission prerequisite to assessment: regular attendance of exercises as well as successful completion of the respective exercises.</li> </ul> <p><b>Assessment in module component 07-1A1ZO-4T-072: Das Tierreich (The Animal Kingdom)</b></p> <ul style="list-style-type: none"> <li>4 ECTS credits, numerical grading</li> <li>written examination (approx. 60 minutes)</li> <li>Additional 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.</li> </ul> <p><b>Assessment in module component 07-1A1ZO-NF-1Z-082: Die Zelle für das Nebenfach Biologie (The Cell for Biology Minors)</b></p> <ul style="list-style-type: none"> <li>1 ECTS credit, numerical grading</li> <li>written examination (approx. 60 minutes) including multiple choice questions</li> </ul> <p><b>Assessment in module component 07-1A1ZO-2E-102: Evolution</b></p> <ul style="list-style-type: none"> <li>1 ECTS credit, pass / fail</li> <li>written examination (approx. 30 minutes, including multiple choice questions)</li> <li>Additional prerequisites: admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul>						
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.							

07-2A2GN-V-072-m01	<b>Genetics, Neurobiology, Behaviour</b>							
	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"> <li>• 07-2A2GNV-1G-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 07-2A2GNV-2N-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 07-2A2GNV-3V-072: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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><b>Assessment in module component 07-2A2GNV-1G-072: Basic Genetics Basic Genetics</b></p> <ul style="list-style-type: none"> <li>• 2 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 30 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul> <p><b>Assessment in module component 07-2A2GNV-2N-072: Basic Neurobiology Basic Neurobiology</b></p> <ul style="list-style-type: none"> <li>• 2 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 30 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul> <p><b>Assessment in module component 07-2A2GNV-3V-072: Behavioural Biology Behavioural Biology</b></p> <ul style="list-style-type: none"> <li>• 2 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 30 minutes, word problems and/or multiple choice questions)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul>						
	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.						
07-2BM-072-m01	<b>Mathematical Biology and Biostatistics</b>							
	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. 45 minutes) including 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.						
	Participants and allocation of places	Only as part of "spezielles Studienangebot": 30 places.						
07-3A3EBI-OT-102-m01	<b>Developmental Biology of Animals</b>							
	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. 30 to 60 minutes) including 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.						

07-3A3OE-102- m01	<b>Plant and Animal Ecology</b>							
	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"> <li>• 07-3A3OE-1-102: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 07-3A3OE-2-102: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 07-3A3OE-1-102: Animal Ecology Animal Ecology</b></p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 45 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul> <p><b>Assessment in module component 07-3A3OE-2-102: Plant Ecology Plant Ecology</b></p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 45 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises as specified at the beginning of the course.</li> </ul>						
	other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
Participants and allocation of places	Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.							
<b>Application-oriented Subject Biology Compulsory Electives 2 (16 ECTS credits)</b>								
When taking up their studies, students are highly recommended to consult with the course advisory service Biology that will help them choose appropriate modules from the list below. Modules from the areas "Spezielle Biowissenschaften I / II" ("Specific Biosciences I / II") may only be used by students who achieved no less than 14 ECTS credits in the area of mandatory electives 1 beforehand.								
07-2A2PPR- NF-082-m01	<b>Basic Physiology of Prokaryotes for minor field of study</b>							
	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 (approx. 60 minutes) including multiple choice questions							
07-2A2PPF- NF-082-m01	<b>Basic Physiology of Plants for minor field of study</b>							
	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 (approx. 45 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.							

07-2A2TP-NF-082-mo1	<b>Basic Physiology of Animals for minor field of study</b>							
	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 (approx. 60 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.						
07-3A3E-BIOP-102-mo1	<b>Developmental Biology of Plants for minor field of study</b>							
	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. 30 to 60 minutes) including 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.						
07-3A3GM-T-102-mo1	<b>Genes, Molecules, Technologies</b>							
	ECTS	6	Duration	1 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"> <li>07-3A3GMT-1-102, 07-3A3GMT-2-102, 07-3A3GMT-3-102, and 07-3A3GMT-4-102: V (no information on language and number of weekly contact hours available)</li> </ul>						
	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. <p><b>Assessment in module component 07-3A3GMT-1-102:</b> Genetik (Genetics), <b>in module component 07-3A3GMT-2-102:</b> Bioinformatik (Bioinformatics), <b>in module component 07-3A3GMT-3-102:</b> Biotechnologie (Biotechnology), and <b>in module component 07-3A3GMT-4-102:</b> Pharmakokinetik (Pharmacokinetics) :</p> <ul style="list-style-type: none"> <li>1.5 ECTS credits, numerical grading</li> <li>written examination (approx. 30 minutes, including multiple choice questions)</li> </ul>						
07-3A3B-C-102-mo1	<b>Principles of Biochemistry</b>							
	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. 30 to 60 minutes) including 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.						

07-4A4FL-102-m01	<b>The Flora of Germany</b>							
ECTS	7	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"> <li>• 07-4A4FL-1-102: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 07-4A4FL-2-102: E (no information on SWS (weekly contact hours) and course language available)</li> </ul>							
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><b>Assessment in module component 07-4A4FL-1-102:</b> Introduction to the Flora of Germany Introduction to the Flora of Germany</p> <ul style="list-style-type: none"> <li>• 4 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 45 minutes) and practical identification assignment (approx. 45 minutes), weighted 1:1</li> <li>• Assessment offered: once a year, summer semester</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises (particular emphasis to be placed on the setting up a herbarium) as specified at the beginning of the course.</li> </ul> <p><b>Assessment in module component 07-4A4FL-2-102:</b> Field Excursions on the Flora of Germany</p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: (not) successfully completed</li> <li>• log (approx. 1 to 2 pages per field trip)</li> <li>• Assessment offered: once a year, summer semester</li> </ul>							
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.							
Participants and allocation of places	<p>Number of places: 180. 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): allo-</p>							
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ces will be allocated according to the selection process of group 1.								



07-4A4FA-102-m01	<b>The Fauna of Germany</b>							
ECTS	7	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"> <li>07-4A4FA-1-102: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>07-4A4FA-2-102: E (no information on SWS (weekly contact hours) and course language available)</li> </ul>							
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><b>Assessment in module component 07-4A4FA-1-102:</b> Introduction to the Fauna of Germany Introduction to the Fauna of Germany</p> <ul style="list-style-type: none"> <li>4 ECTS, Method of grading: numerical grade</li> <li>written examination (approx. 45 minutes) and practical identification assignment (approx. 45 minutes), weighted 1:1</li> <li>Assessment offered: once a year, summer semester</li> <li>Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises and successful completion of the respective exercises (particular emphasis to be placed on the setting up a herbarium) as specified at the beginning of the course.</li> </ul> <p><b>Assessment in module component 07-4A4FA-2-102:</b> Field Excursions on the Fauna of Germany</p> <ul style="list-style-type: none"> <li>3 ECTS, Method of grading: (not) successfully completed</li> <li>log (approx. 1 to 2 pages per field trip)</li> <li>Assessment offered: once a year, summer semester</li> </ul>							
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.							
Participants and allocation of places	<p>Number of places: 180. 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;</p>							
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			<p>ation 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.</p>					

07-4S1N- VO1-102-m01	<b>Neurobiology 1</b>							
	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	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of lab course as specified at the beginning of the course.						
Participants and allocation of places	<p>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.</p>							

07-4S1N- VO2-102-m01	<b>Integrative Behavioral Biology</b>							
	ECTS	5	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	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	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.						
Participants and allocation of places	<p>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.</p>							

07-4S1N- VO3-092-m01	<b>Functional Morphology of arthropods</b>							
	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.						
Participants and allocation of places	<p>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.</p>							

07-4S1M- Z1-102-m01	<b>Basics in Light- and Electron-Microscopy</b>							
	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. 30 to 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.						
Participants and allocation of places	<p>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 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.</p>							

07-4S1M- Z2-102-m01	<b>Analysis of Chromosomes</b>							
	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. 30 to 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.						
Participants and allocation of places	<p>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 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.</p>							

07-4S1M- Z6-102-m01	<b>Special Bioinformatics 1</b>							
	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) Language of assessment: German or English						
	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.						
Participants and allocation of places	<p>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.</p>							

07-4S1PS1-102- m01	<b>Molecular modelling - From DNA to protein</b>							
	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 (approx. 6 hours)						
	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.						
Participants and allocation of places	<p>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 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.</p>							



07-4S1PS2-102- m01	<b>Introduction to Methods in Plant Ecophysiology</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Ü + S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	log (approx. 10 to 20 pages)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of exercises and seminar as well as successful completion of the respective exercises as specified at the beginning of the course.						
Participants and allocation of places	<p>Number of places: 15. Should the number of applications exceed the number of available places, places will be allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (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.</p>							

07-4S1PS3-102- m01	<b>Pharmaceutical Drugs in Plants</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Ü + S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of exercises and seminar as well as successful completion of the respective exercises as specified at the beginning of the course.						
Participants and allocation of places	<p>Number of places: 6. 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.</p>							

07-S1-LP1-102-m01	<b>Laboratory practical course I</b>							
	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	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of lab course as specified at the beginning of the course; please consult with academic advisory service in advance.						
07-S1-Ex1-102-m01	<b>Excursion I</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	E (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of field trip as specified at the beginning of the course; please consult with academic advisory service in advance.						
07-S1-IP1-102-m01	<b>Interdisciplinary Project I</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	R (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of project sessions as specified at the beginning of the course; please consult with academic advisory service in advance.						
07-5EP-102-m01	<b>External Practical Course</b>							
	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	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of lab course as specified at the beginning of the course; please consult with academic advisory service in advance.						

07-S2-EX2-102-m01	<b>Excursion II</b>							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	E (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of field trip as specified at the beginning of the course; please consult with academic advisory service in advance.						
07-S2-IP2-102-m01	<b>Interdisciplinary Project II</b>							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	R (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of project sessions as specified at the beginning of the course; please consult with academic advisory service in advance.						
07-S2-LP2-102-m01	<b>Laboratory Practical Course II</b>							
	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	methods of assessment: a) written examination (approx. 45 to 60 minutes) or b) log (approx. 10 to 20 pages) or c) oral examination of one candidate each (approx. 30 minutes) or d) oral examination in groups of up to 3 candidates (approx. 20 minutes per candidate) or e) presentation (approx. 20 to 30 minutes); students will be informed about the method and length of the assessment prior to the course						
	other prerequisites	Admission prerequisite to assessment: regular attendance of lab course as specified at the beginning of the course; please consult with academic advisory service in advance.						

07-SQF-OSB-102-m01	<b>Organisation and Safety in Biosciences</b>							
	ECTS	5	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	a) written examination (30 to 60 minutes) and b) presentation (approx. 10 minutes) or term paper (approx. 5 to 10 pages)						
	Participants and allocation of places	<p>Number of places: 15. Should the number of applications exceed the number of available places, places will be allocated as follows: Places will primarily be allocated to students of the Bachelor's degree subject Biologie (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.</p>						
<b>Application-oriented Subject Chemistry (40 ECTS credits)</b>								
<b>Application-oriented Subject Chemistry Compulsory Courses (26 ECTS credits)</b>								
o8-CM1-112-m01	<b>Introduction to Inorganic Chemistry for Students of Mathematics and other Subjects</b>							
	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. 90 minutes)						

o8-OC1-092-m01	<b>Organic Chemistry 1</b>							
	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) 1 to 3 written examinations (1 written examination: approx. 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
Referred to in LPO I	§ 62 (1) 2. Chemie "Organische und Bioorganische Chemie"							
o8-PC1-092-m01	<b>Physical Chemistry 1</b>							
	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: approx. 90 minutes; 2 written examinations: 60 or 90 minutes each; 3 written examinations: 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
11-EFNF-072-m01	<b>Introduction to Physics for Students of Non-physics-related Minor Subjects</b>							
	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 allocation of places	Only as part of pool of general key skills (ASQ): 10 places. Places will be allocated by lot.						
<b>Application-oriented Subject Chemistry Compulsory Electives (14 ECTS credits)</b>								
o8-OC2-102-m01	<b>Organic Chemistry 2</b>							
	ECTS	9	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + 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: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) 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						
	Modules successfully completed	o8-OC1						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						

o8-PC3-092-mo1	<b>Physical and Theoretical Chemistry 3: Symmetry and Quantum Chemistry</b>							
	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	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 of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
o8-TC-092-mo1	<b>Theoretical Models in Chemistry</b>							
	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: approx. 90 minutes; 2 written examinations: approx. 60 or 90 minutes each; 3 written examinations: approx. 60 minutes each) or b) oral examination of one candidate each (approx. 20 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes)						
	other prerequisites	Admission prerequisite to assessment: successful completion of exercises in the respective classes as specified at the beginning of the course (usually 70% of exercises to be successfully completed) as well as regular attendance of exercises (usually a maximum of 2 incidents of unexcused absence).						
<b>Application-oriented Subject Geography (40 ECTS credits)</b>								
<b>Application-oriented Subject Geography - Basics of the Scientific Discipline (10 ECTS credits)</b>								
09-HG1SI-102-mo1	<b>Introduction to the Geography of Cities, Towns and Villages</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 47 (1) 1. Geographie Humangeographie § 66 (1) 1. Geographie Humangeographie						
09-HG1WI-102-mo1	<b>Introduction to Economic Geography</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 47 (1) 1. Geographie Humangeographie § 66 (1) 1. Geographie Humangeographie						
09-HG1SO-102-mo1	<b>Introduction to Social and Population Geography</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 47 (1) 1. Geographie Humangeographie § 66 (1) 1. Geographie Humangeographie						

09-PG1ExD-102-m01	<b>General Physical Geography 1 (Earth System: Exogeneous Dynamics - Geomorphology)</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 47 (1) 1. Geographie Physiogeographie § 66 (1) 1. Geographie Physiogeographie						
09-PG1KS-102-m01	<b>General Physical Geography 2 (Earth System: Climate System)</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 47 (1) 1. Geographie Physiogeographie § 66 (1) 1. Geographie Physiogeographie						
09-PG1En-D-102-m01	<b>General Physical Geography 3 (Earth System: Endogenic Dynamics)</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 47 (1) 1. Geographie Physiogeographie § 66 (1) 1. Geographie Physiogeographie						
<b>Application-oriented Subject Geography - Special Topics (10 ECTS credits)</b>								
09-KART1-102-m01	<b>Cartography 1</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 75 minutes) and practice work (approx. 30 hours for creating approx. 3 maps or diagrams); weighted 1:1						
	Referred to in LPO I	§ 66 (1) 2. Geographie Methoden der Geographie						
09-FERN1-102-m01	<b>Remote Sensing 1</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						
	Referred to in LPO I	§ 66 (1) 2. Geographie Methoden der Geographie						
09-FERN2-102-m01	<b>Remote Sensing 2</b>							
	ECTS	5	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	V + T (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 45 minutes)						



09-HG2T1-102-m01	<b>Special Issues of Human Geography 1</b>							
	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 (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1						
09-HG2T2-102-m01	<b>Special Issues of Human Geography 2</b>							
	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 (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1						
09-MT2-082-m01	<b>Theories and Methodology in Human Geography</b>							
	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						
	Referred to in LPO I	§ 66 (1) 2. Geographie Methoden der Geographie						
09-MT4-102-m01	<b>Quantitative and Qualitative Regional Analysis</b>							
	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"> <li>• 09-MT4-1-102: S (no information on SWS (weekly contact hours) and course language available)</li> <li>• 09-MT4-2-102: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 09-MT4-1-102:</b> Quantitative Regional Analysis</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: numerical grade</li> <li>• presentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1</li> </ul> <p><b>Assessment in module component 09-MT4-2-102:</b> Qualitative Regional Analysis</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: numerical grade</li> <li>• a) presentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1 or b) 2 short presentations (10 minutes each) and one portfolio (including approx. 5 logs of practical exercises as well as approx. 3 exercises), weighted 1:1:2</li> </ul>						
	Referred to in LPO I	§ 66 (1) 2. Geographie Methoden der Geographie						

09-MT6-102-m01	<b>Methods of Planning in Human Geography</b>							
	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"> <li>09-MT6-1-082: S (no information on SWS (weekly contact hours) and course language available)</li> <li>09-MT6-2-102: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 09-MT6-1-082: Methods of Planning in Human Geography 1</b></p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>a) 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</li> </ul> <p><b>Assessment in module component 09-MT6-2-102: Planning Methods in Human Geography 2</b></p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>a) presentation (approx. 25 minutes) with written elaboration (approx. 12 pages) or b) term paper (approx. 20 pages) or c) several small assessments (total length/expenditure of time comparable to a) and/or b))</li> </ul>						
09-HG3-102-m01	<b>Applied Human Geography</b>							
	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"> <li>09-HG3-1-082: S (no information on SWS (weekly contact hours) and course language available)</li> <li>09-HG3-2-102: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 09-HG3-1-082: Project-oriented Seminar 1 for Applied Human Geography</b></p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>presentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1</li> </ul> <p><b>Assessment in module component 09-HG3-2-102: Project-oriented Seminar 2 for Applied Human Geography</b></p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>presentation (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1</li> </ul>						
Modules successfully completed	09-HG1 and 09-MT2 and 09-MT4 and 09-STAT-1 and 09-KART-1 and either 09-STAT-2 or 09-KART-2							
09-PG2T1-102-m01	<b>Special Problems of Physical Geography 1</b>							
	ECTS	5	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. 45 minutes)						
09-PG2T2-102-m01	<b>Special Problems of Physical Geography 2</b>							
	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 (approx. 30 minutes) with written elaboration (approx. 20 pages), weighted 1:1						

09-MT1-102-m01	<b>Data Acquisition and Processing in Physical Geography</b>							
	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 (approx. 15 minutes) with written elaboration (15 pages), weighted 1:1						
09-MT3-082-m01	<b>Working Methods: Solid Earth System</b>							
	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"> <li>09-MT3-1-082: S (no information on SWS (weekly contact hours) and course language available)</li> <li>09-MT3-2-082: Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 09-MT3-1-082:</b> Mineral and Rock Identification</p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>written or oral examination of one candidate each (30 minutes each)</li> </ul> <p><b>Assessment in module component 09-MT3-2-082:</b> Geological Maps and Structures</p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>written or oral examination of one candidate each (approx. 30 minutes each) or term paper (approx. 20 pages)</li> </ul>						
	Referred to in LPO I	§ 66 (1) 2. Geographie Methoden der Geographie						
09-MT5-102-m01	<b>Working Methods of Physical Geography</b>							
	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"> <li>09-MT5-1-082: P (no information on SWS (weekly contact hours) and course language available)</li> <li>09-MT5-2-102: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 09-MT5-1-082:</b> Introduction to physiogeographical Fieldwork Skills, Field Mapping and Measuring</p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>placement report / fieldwork report / report on practical training / report on practical course / project report / report on technical course (approx. 15 pages)</li> </ul> <p><b>Assessment in module component 09-MT5-2-102:</b> Data management, -analysis and -interpretation</p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>presentation of project (approx. 30 minutes) with written elaboration (approx. 20 pages)</li> </ul>						

09-PG3-102-m01	<b>Applied Physical Geography</b>							
	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"> <li>09-PG3-1-082: S (no information on SWS (weekly contact hours) and course language available)</li> <li>09-PG3-2-102: S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 09-PG3-1-082:</b> Project Seminar: Establishing Current Status and Data Acquisition</p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>presentation (30 minutes) with written elaboration (20 pages), weighted 1:1</li> </ul> <p><b>Assessment in module component 09-PG3-2-102:</b> Project Seminar: Data Evaluation, Data Visualisation and Presentation</p> <ul style="list-style-type: none"> <li>5 ECTS, Method of grading: numerical grade</li> <li>project report (approx. 20 pages)</li> </ul>						
<b>Application-oriented Subject Computer Science (40 ECTS credits)</b>								
10-I-ADS-102-m01	<b>Algorithm and data structures</b>							
	ECTS	10	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
	Referred to in LPO I	§ 49 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen § 69 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen						
10-I-AGT-122-m01	<b>Algorithmic Graph Theory</b>							
	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. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: English, German if agreed upon with the examiner						
	other prerequisites	Where applicable, prerequisites as specified by the lecturer at the beginning of the course (e. g. completion of exercises).						

10-I-AR-102-m01	<b>Automation and Control Technology</b>							
	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-KT-102-m01	<b>Theory of Complexity</b>							
	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. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-DB-102-m01	<b>Databases</b>							
	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. 50 to 60 minutes) if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
	Referred to in LPO I	§ 49 (1) 1. b) Datenbanksysteme und Softwaretechnologie § 69 (1) 1. b) Datenbanksysteme und Softwaretechnologie						

10-I-IÜ-102-m01	<b>Information Transmission</b>							
	ECTS	10	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
Referred to in LPO I	§ 69 (1) 1. c) Informatik Technische Informatik							
10-I-LOG-102-m01	<b>Logic for informatics</b>							
	ECTS	6	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. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes)						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-OOP-102-m01	<b>Object-oriented Programming</b>							
	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. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
10-I-PP-102-m01	<b>Practical Course in Programming</b>							
	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	written examination (approx. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
	Additional Information	Additional information on module duration: 1 to 2 semesters.						
Referred to in LPO I	§ 49 (1) 1. c) Informatik Praktische Softwareentwicklung § 69 (1) 1. d) Informatik Praktische Softwareentwicklung							

10-I-RAK-102-m01	<b>Computer Architecture</b>							
	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. 50 to 60 minutes); if announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups (one candidate each: 15 minutes, groups of 2: 20 minutes, groups of 3: 25 minutes) Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
Referred to in LPO I	§ 69 (1) 1. c) Informatik Technische Informatik							
10-I-RAL-102-m01	<b>Digital computer systems</b>							
	ECTS	10	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
Referred to in LPO I	§ 69 (1) 1. c) Informatik Technische Informatik							
10-I-RK-102-m01	<b>Computer Networks and Communication Systems</b>							
	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3. Language of assessment: German, English if agreed upon with the examiner						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						

10-I-ST-102-m01	<b>Software Technology</b>							
	ECTS	10	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
Referred to in LPO I	§ 49 (1) 1. b) Datenbanksysteme und Softwaretechnologie § 69 (1) 1. b) Datenbanksysteme und Softwaretechnologie							
10-I-SWP-102-m01	<b>Practical course in software</b>							
	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	completion of project assignments, presentation						
	Referred to in LPO I	§ 49 (1) 1. c) Informatik Praktische Softwareentwicklung § 69 (1) 1. d) Informatik Praktische Softwareentwicklung						
10-I-TI-102-m01	<b>Theoretical informatics</b>							
	ECTS	10	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. 80 to 90 minutes). If announced by the lecturer by four weeks prior to the examination date, the written examination can be replaced by an oral examination of one candidate each or an oral examination in groups. A 80 to 90 minute written examination is equivalent to a 20 minute (approx.) oral examination of one candidate each, a 30 minute (approx.) oral examination in groups of 2 and a 40 minute (approx.) oral examination in groups of 3.						
	other prerequisites	Admission prerequisite to assessment: exercises (type and scope to be announced by the lecturer at the beginning of the course).						
Referred to in LPO I	§ 49 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen § 69 (1) 1. a) Informatik Theoretische Informatik, Algorithmen und Datenstrukturen							



Application-oriented Subject Philosophy (40 ECTS credits)								
Application-oriented Subject Philosophy Compulsory Courses (20 ECTS credits)								
06-B-P1-122-m01	<b>Principles of Philosophy</b>							
	ECTS	10	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	<p>This module comprises 3 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• 06-B-P1-1-122: Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 06-B-P1-2-122: S (no information on SWS (weekly contact hours) and course language available)</li> <li>• 06-B-P1-3-122: V + S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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><b>Assessment in module component 06-B-P1-1-122:</b> Introduction to academic working techniques</p> <ul style="list-style-type: none"> <li>• 2 ECTS, Method of grading: (not) successfully completed</li> <li>• 1 small written assessment (approx. 1 page) and/or 1 oral assessment (approx. 5 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of exercises (a maximum of 2 incidents of unexcused absence).</li> </ul> <p><b>Assessment in module component 06-B-P1-2-122:</b> Introduction to formal logic</p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: (not) successfully completed</li> <li>• written examination (approx. 90 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).</li> </ul> <p><b>Assessment in module component 06-B-P1-3-122:</b> Principles of Philosophy: historical epochs, main works, authors Principles of Philosophy: historical epochs, main works, authors</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: numerical grade</li> <li>• oral examination (approx. 25 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).</li> </ul>						
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.							

06-B-P2-102-m01	<b>Philosophy and the sciences</b>							
	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"> <li>• 06-B-P2-1-102: V + S (no information on SWS (weekly contact hours) and course language available)</li> <li>• 06-B-P2-2-102: V + S (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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. <p><b>Assessment in module component 06-B-P2-1-102:</b> Philosophical principles of arts and humanities Philosophical principles of arts and humanities</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 90 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).</li> </ul> <p><b>Assessment in module component 06-B-P2-2-102:</b> Philosophical principles of natural sciences and technology Philosophical principles of natural sciences and technology</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: numerical grade</li> <li>• written examination (approx. 90 minutes)</li> <li>• Other prerequisites: Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).</li> </ul>						
	other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
	Participants and allocation of places	Only as part of pool of general key skills (ASQ): max. 20 places. Places will be allocated according to the number of subject semesters. Among applicants with the same number of subject semesters, places will be allocated by lot.						
<b>Application-oriented Subject Philosophy Compulsory Electives (10 ECTS credits)</b>								
06-B-P3-122-m01	<b>Theoretical Philosophy</b>							
	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	oral examination (approx. 25 minutes) in one of the seminars (seminar to be selected by students)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminars (a maximum of 2 incidents of unexcused absence).						
06-B-P4-122-m01	<b>Practical Philosophy</b>							
	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	written examination (approx. 120 minutes) in one of the seminars (seminar to be selected by students)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminars (a maximum of 2 incidents of unexcused absence).						
06-B-P5-122-m01	<b>History of Philosophy</b>							
	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	written examination (approx. 120 minutes) in one of the seminars (seminar to be selected by students)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminars (a maximum of 2 incidents of unexcused absence).						

06-B-P6-122-m01	<b>Issues of research in philosophy</b>							
	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	oral examination (approx. 25 minutes) in one of the seminars (seminar to be selected by students)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminars (a maximum of 2 incidents of unexcused absence).						
06-B-W1-122-m01	<b>Text Analysis: Ancient Philosophy</b>							
	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 (approx. 120 minutes) or term paper (approx. 12 pages)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W2-122-m01	<b>Text Analysis: Medieval Philosophy</b>							
	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 (approx. 120 minutes) or term paper (approx. 12 pages)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W3-122-m01	<b>Text Analysis: Modern Philosophy</b>							
	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 (approx. 120 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W4-122-m01	<b>Text Analysis: Contemporary Philosophy</b>							
	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 (approx. 120 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W5-122-m01	<b>Basic disciplines of theoretical philosophy</b>							
	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)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W6-122-m01	<b>Specific disciplines of theoretical philosophy</b>							
	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) or oral examination (approx. 25 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						

06-B-W7-122-m01	<b>Basic disciplines of practical philosophy</b>							
	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) or oral examination (approx. 25 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W8-122-m01	<b>Specific disciplines of practical philosophy</b>							
	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) or oral examination (approx. 25 minutes)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W9-122-m01	<b>Problems of Older Philosophy</b>							
	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)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W10-122-m01	<b>Problems of Modern Philosophy</b>							
	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)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W11-122-m01	<b>Problems of Theoretical Philosophy</b>							
	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)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						
06-B-W12-122-m01	<b>Problems of Practical Philosophy</b>							
	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)						
	other prerequisites	Admission prerequisite to assessment: regular attendance of seminar (a maximum of 2 incidents of unexcused absence).						

Application-oriented Subject Physics (40 ECTS credits)								
Application-oriented Subject Physics Compulsory Electives 1: Basics (16 ECTS credits)								
11-ENNF1-062-m01	<b>Introduction to Physics Part 1 for students of Physics Related Minor Subjects</b>							
	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	<b>Introduction to Physics Part 2 for students of Physics Related Minor Subjects</b>							
	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-KP-092-m01	<b>Classical Physics (Mechanics, Thermodynamics, Waves, Oscillations, Electricity, Magnetism and Optics)</b>							
	ECTS	16	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Klassische Physik 1 (Mechanik, Wellen, Wärme) (Classical Physics 1 (Mechanics, Waves, Heat)): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (winter semester) Klassische Physik 2 (Elektromagnetismus, Optik) (Classical Physics 2 (Electromagnetism, Optics)): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (summer semester)						
	Method of assessment	<p>This module has the following assessment components</p> <ol style="list-style-type: none"> <li>1. Topics covered in lectures and exercises in part 1 (Klassische Physik 1 (Classical Physics 1)): written examination (approx. 120 minutes).</li> <li>2. Topics covered in lectures and exercises in part 2 (Klassische Physik 2 (Classical Physics 2)): written examination (approx. 120 minutes).</li> <li>3. Topics covered in lectures and exercises in parts 1 and 2: oral examination of one candidate each (approx. 30 minutes, usually chosen) or written examination (approx. 120 minutes).</li> </ol> <p>Assessment component 3 will be offered in German; English if agreed upon with examiner(s). Successful completion of approx. 50% of practice work each is a prerequisite for admission to assessment components 1 and 2. To qualify for admission to assessment component 3, students must pass assessment component 1 and/or 2. Students are highly recommended to attend both courses Klassische Physik 1 (Classical Physics 1) and Klassische Physik 2 (Classical Physics 2). The topics discussed in these two courses will be covered in assessment component 3. Students must register for assessment components 1 through 3 online (details to be announced). To pass this module, students must first pass assessment component 1 or 2 and must then pass assessment component 3. The grade achieved in assessment component 1 or 2 (whichever is better) and the grade achieved in assessment component 3 will each count 50% towards the overall grade awarded for the module.</p>						
	other prerequisites	Bridge course Mathematische Rechenmethoden der Physik (Mathematical Methods of Physics) for first-semester students.						

Application-oriented Subject Physics Compulsory Electives 2: Lab Course (9 ECTS credits)							
11-PNNF-062-m01	<b>Physics Laboratory Course for students of Physics Related Minor Subjects</b>						
	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 allocation of places	Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.					
11-P-PA-112-m01	<b>Lab Course A</b>						
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level   undergraduate
	Courses	Auswertung von Messungen und Fehlerrechnung (Measurements and Data Analysis): V (1 weekly contact hour) + Ü (1 weekly contact hour), once a year (winter semester) Beispiele aus Mechanik, Wärmelehre und Elektrik (Examples from Mechanics, Thermodynamics and Electricity, BAM): P (2 weekly contact hours)					
	Method of assessment	<p>This module has the following assessment components</p> <ol style="list-style-type: none"> <li>Topics covered in lectures and exercises: written examination (approx. 120 minutes)</li> <li>Lab course: 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).</li> </ol> <p>Successful completion of approx. 50% of practice work is a prerequisite for admission to assessment component 1 . To pass assessment component 2, students must pass both elements a) and b). Students will be offered one opportunity to retake element a) and/or element b). Students must register for assessment components 1 and 2 online (details to be announced). Students must attend Auswertung von Messungen und Fehlerrechnung (Measurements and Data Analysis) before attending Beispiele aus Mechanik, Wärmelehre und Elektrik (Examples from Mechanics, Thermodynamics and Electricity). To pass this module, students must pass both assessment component 1 and assessment component 2.</p>					
	Referred to in LPO I	§ 53 (1) 1. a) Physik Mechanik, Wärmelehre, Elektrizitätslehre, Optik, der speziellen Relativitätstheorie § 53 (1) 1. c) Physik physikalische Grundpraktika § 77 (1) 1. a) Physik "Grundlagen der Experimentalphysik" § 77 (1) 1. d) Physik "physikalische Praktika"					
11-P-NFB-122-m01	<b>Basic Practical Course B (Minor Studies)</b>						
	ECTS	4	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) Preparing, performing and evaluating (lab report) the experiments will be considered successfully completed if a Testat (exam) is passed. Experiments that were not successfully completed can be repeated once. And b) talk (with discussion; approx. 30 minutes) to test the candidate's understanding of the physics-related contents of the module component. Talks that were not successfully completed can be repeated once. Both components of the assessment have to be successfully completed.					
	Modules successfully completed	11-P-PA					
Additional Information	Additional information on module duration: 1 to 2 semesters.						

**Application-oriented Subject Physics Compulsory Electives 3 (24 ECTS credits)**

Out of several module components covering the same contents, students may only use one each. This means that the following combinations are not permitted:

- 11-KM may neither be combined with 11-QAM nor with 11-FKP.
- 11-STE may neither be combined with 11-ST nor with 11-ED.
- 11-TQM may neither be combined with 11-TM nor with 11-QM.

11-ED-092-m01	<b>Theoretical Electrodynamics</b>							
	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, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.						
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.							
11-FKP-092-m01	<b>Solid State Physics 1</b>							
	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, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.						
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.							

11-QAM-092-m01	<b>Quanta, Atoms, Molecules</b>							
	ECTS	8	Duration	1 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Ü + Ü (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	written examination (approx. 120 minutes, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.						
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.							
11-QM-092-m01	<b>Quantum Mechanics</b>							
	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, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.						
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.							
11-ST-092-m01	<b>Statistical Mechanics and Thermodynamics</b>							
	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, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.						
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.							



11-TM-092-m01	<b>Theoretical Mechanics</b>							
	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, for modules with less than 4 ECTS credits approx. 90 minutes; unless otherwise specified) Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.						
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.							
11-KET-122-m01	<b>Nuclear and Elementary Particle Physics</b>							
	ECTS	6	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)						
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.							

11-KM-092-m01	<b>Condensed Matter (Quanta, Atoms, Molecules, Solid State Physics)</b>							
	ECTS	16	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Kondensierte Materie 1 (Quanten, Atome, Moleküle) (Condensed Matter 1 (Quanta, Atoms, Molecules)): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (winter semester) Kondensierte Materie 2 (Festkörperphysik 1) (Condensed Matter 2 (Solid State Physics)): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (summer semester)						
Method of assessment	<p>This module has the following assessment components</p> <ol style="list-style-type: none"> <li>1. Topics covered in lectures and exercises in part 1 (Kondensierte Materie 1 (Condensed Matter 1)): written examination (approx. 120 minutes).</li> <li>2. Topics covered in lectures and exercises in part 2 (Kondensierte Materie 2 (Condensed Matter 2)): written examination (approx. 120 minutes).</li> <li>3. Topics covered in lectures and exercises in parts 1 and 2: oral examination of one candidate each (approx. 30 minutes, usually chosen) or written examination (approx. 120 minutes).</li> </ol> <p>Assessment component 3 will be offered in German; English if agreed upon with examiner(s).          Successful completion of approx. 50% of practice work each is a prerequisite for admission to assessment components 1 and 2.          To qualify for admission to assessment component 3, students must pass assessment component 1 and/or 2. Students are highly recommended to attend both courses Kondensierte Materie 1 (Condensed Matter 1) and Kondensierte Materie 2 (Condensed Matter 2). The topics discussed in these two courses will be covered in assessment component 3.          Students must register for assessment components 1 through 3 online (details to be announced).          To pass this module, students must first pass assessment component 1 or 2 and must then pass assessment component 3.          The grade achieved in assessment component 1 or 2 (whichever is better) and the grade achieved in assessment component 3 will each count 50% towards the overall grade awarded for the module.</p>							

11-STE-092-m01	<b>Statistical Mechanics, Thermodynamics and Electrodynamics</b>							
	ECTS	16	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Statistische Mechanik und Thermodynamik (Statistical Mechanics and Thermodynamics): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (winter semester) Theoretische Elektrodynamik (Theoretical Electrodynamics): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (summer semester)						
	Method of assessment	<p>This module has the following assessment components</p> <ol style="list-style-type: none"> <li>1. Topics covered in lectures and exercises in part 1 (Statistische Mechanik und Thermodynamik (Statistical Mechanics and Thermodynamics)): written examination (approx. 120 minutes).</li> <li>2. Topics covered in lectures and exercises in part 2 (Theoretische Elektrodynamik (Theoretical Electrodynamics)): written examination (approx. 120 minutes).</li> <li>3. Topics covered in lectures and exercises in parts 1 and 2: oral examination of one candidate each (approx. 30 minutes, usually chosen) or written examination (approx. 120 minutes).</li> </ol> <p>Assessment component 3 will be offered in German; English if agreed upon with examiner(s).          Successful completion of approx. 50% of practice work each is a prerequisite for admission to assessment components 1 and 2.</p> <p>Students are highly recommended to attend both courses Statistische Mechanik und Thermodynamik (Statistical Mechanics and Thermodynamics) and Theoretische Elektrodynamik (Theoretical Electrodynamics). The topics discussed in these two courses will be covered in assessment component 3.          Students must register for assessment components 1 through 3 online (details to be announced).          To pass this module, students must first pass assessment component 1 or 2 and must then pass assessment component 3.          The grade achieved in assessment component 1 or 2 (whichever is better) and the grade achieved in assessment component 3 will each count 50% towards the overall grade awarded for the module.</p>						
other prerequisites	10-M1-PHY and 10-M2-PHY or 10-M1-NST and 10-M2-NST							

11-TQM-092-m01	<b>Theoretical Mechanics and Quantum Mechanics</b>							
	ECTS	16	Duration	2 semester	Method of grading	numerical grade	Modul level	undergraduate
	Courses	Theoretische Mechanik (Theoretical Mechanics): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (winter semester) Quantenmechanik (Quantum Mechanics): V (4 weekly contact hours) + Ü (2 weekly contact hours), once a year (summer semester)						
	Method of assessment	<p>This module has the following assessment components</p> <ol style="list-style-type: none"> <li>1. Topics covered in lectures and exercises in part 1 (Theoretische Mechanik (Theoretical Mechanics)): written examination (approx. 120 minutes).</li> <li>2. Topics covered in lectures and exercises in part 2 (Quantenmechanik (Quantum Mechanics)): written examination (approx. 120 minutes).</li> <li>3. Topics covered in lectures and exercises in parts 1 and 2: oral examination of one candidate each (approx. 30 minutes, usually chosen) or written examination (approx. 120 minutes).</li> </ol> <p>Successful completion of approx. 50% of practice work each is a prerequisite for admission to assessment components 1 and 2.</p> <p>To qualify for admission to assessment component 3, students must pass assessment component 1 and/or 2. Students are highly recommended to attend both courses Theoretische Mechanik (Theoretical Mechanics) and Quantenmechanik (Quantum Mechanics). The topics discussed in these two courses will be covered in assessment component 3.</p> <p>Students must register for assessment components 1 through 3 online (details to be announced).</p> <p>To pass this module, students must first pass assessment component 1 or 2 and must then pass assessment component 3. The grade achieved in assessment component 1 or 2 (whichever is better) and the grade achieved in assessment component 3 will each count 50% towards the overall grade awarded for the module.</p>						
	other prerequisites	10-M1-PHY, 10-M2-PHY and 11-MPI-3 or 10-M1-NST, 10-M2-NST and MPI-3						

### Application-oriented Subject Business Management and Economics (40 ECTS credits)

#### Application-oriented Subject Business Management and Economics Compulsory Courses (30 ECTS credits)

12-EBWL-G-082-m01	<b>Introduction to Business Administration</b>							
	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)						
	Participants and allocation of places	<p>Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.</p>						

12-EVWL-G-082-mo1	<b>Introduction to Economics</b>							
	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)					
	Participants and allocation of places		Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.					
12-ExtUR-G-082-mo1	<b>Financial Accounting</b>							
	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)					
	Participants and allocation of places		Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.					

12-IntUR-G-082-mo1	<b>Managerial Accounting</b>							
	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)					
	Participants and allocation of places		Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.					
12-Mak1-G-082-mo1	<b>Macroeconomics 1</b>							
	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)					
	Participants and allocation of places		Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.					

12-Mik1-G-082-mo1	<b>Microeconomics 1</b>							
	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)					
	Participants and allocation of places		Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.					
<b>Application-oriented Subject Business Management and Economics Compulsory Electives (10 ECTS credits)</b>								
12-BPL-G-082-mo1	<b>Supply, Production and Operations Management. An Introduction</b>							
	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)					
	Participants and allocation of places		Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.					

12-I&F-G-082-m01	<b>Investment and Finance. An Introduction</b>							
	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)						
	Participants and allocation of places	Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.						
12-Mak2-G-082-m01	<b>Macroeconomics 2</b>							
	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)						
	Participants and allocation of places	Number of places: 640. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.						



12-Mark-G-o82-mo1	<b>Introduction to Market-Oriented Management</b>							
	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)						
	Participants and allocation of places	Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.						
12-Mik2-G-o82-mo1	<b>Microeconomics 2</b>							
	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)						
	Participants and allocation of places	Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.						

12-WiPo-G-082-mo1	<b>Introduction to Economic Policy</b>							
	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)						
	Participants and allocation of places	Number of places: 405. No restrictions with regard to available places for Bachelor's students of Wirtschaftswissenschaft (Business Management and Economics), Wirtschaftsmathematik (Mathematics for Economics) and Wirtschaftsinformatik (Business Information Systems). The remaining places will be allocated to students of other subjects. Should the number of applications exceed the number of available places, places will be allocated in a standardised procedure among all applicants irrespective of their subjects according to the following quotas: Quota 1 (50% of places): total number of ECTS credits already achieved in the respective degree subject; among applicants with the same number of ECTS credits achieved, places will be allocated by lot. Quota 2 (25% of places): number of subject semesters of the respective applicant; among applicants with the same number of subject semesters, places will be allocated by lot. Quota 3 (25% of places): allocation by lot. Applicants who already have successfully completed at least one module component of the respective module will be given preferential consideration. Places on all courses of the module component with a restricted number of places will be allocated in the same procedure. A waiting list will be maintained and places re-allocated as they become available.						
<b>Thesis (11 ECTS credits)</b>								
10-M-BAM-122-mo1	<b>Thesis Mathematics (Bachelor Thesis)</b>							
	ECTS	11	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						
	Modules successfully completed	Where applicable, specific modules/module components as specified by supervisor.						

Subject-specific Key Skills (16 ECTS credits)								
10-M-MCO-122-mo1	<b>Mathematics and Computer</b>							
	ECTS	7	Duration	2 semester	Method of grading	(not) successfully completed	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"> <li>• 10-M-COM-1-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 10-M-PRG-1-122: P (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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><b>Assessment in module component 10-M-COM-1-122:</b> Computational Mathematics Computational Mathematics</p> <ul style="list-style-type: none"> <li>• 4 ECTS, Method of grading: (not) successfully completed</li> <li>• project in the form of programming exercises (type and expenditure of time to be specified by the lecturer at the beginning of the course)</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul> <p><b>Assessment in module component 10-M-PRG-1-122:</b> Programming course for students of Mathematics and other subjects</p> <ul style="list-style-type: none"> <li>• 3 ECTS, Method of grading: (not) successfully completed</li> <li>• project in the form of programming exercises (type and expenditure of time to be specified by the lecturer at the beginning of the course)</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul>						
other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.							

10-M-MDA-122-mo1	<b>Introduction into mathematical thinking and working</b>							
	ECTS	4	Duration	1 semester	Method of grading	(not) successfully completed	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"> <li>• 10-M-MDA-1-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• 10-M-MDA-2-122: V + Ü (no information on SWS (weekly contact hours) and course language available)</li> </ul>						
	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><b>Assessment in module component 10-M-MDA-1-122:</b> Basic Notions and Methods of Mathematical Reasoning Basic Notions and Methods of Mathematical Reasoning</p> <ul style="list-style-type: none"> <li>• 2 ECTS, Method of grading: (not) successfully completed</li> <li>• project assignments (type and expenditure of time to be specified by the lecturer at the beginning of the course)</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul> <p><b>Assessment in module component 10-M-MDA-2-122:</b> Reasoning and Writing in Mathematics Reasoning and Writing in Mathematics</p> <ul style="list-style-type: none"> <li>• 2 ECTS, Method of grading: (not) successfully completed</li> <li>• project assignments (type and expenditure of time to be specified by the lecturer at the beginning of the course)</li> <li>• Language of assessment: German, English if agreed upon with the examiner</li> <li>• 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.</li> </ul>						
	other prerequisites	By way of exception, additional prerequisites are listed in the section on assessments.						
Referred to in LPO I	§ 73 (1) 5. Mathematik Angewandte Mathematik							
10-M-SEM-122-mo1	<b>Seminar Mathematics</b>							
	ECTS	5	Duration	1 semester	Method of grading	(not) successfully completed	Modul level	undergraduate
	Courses	S (no information on SWS (weekly contact hours) and course language available)						
	Method of assessment	<p>talk (approx. 60 to 180 minutes)</p> <p>Language of assessment: German, English if agreed upon with the examiner</p>						
	other prerequisites	<p>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.</p>						