

# Amtliches Mitteilungsblatt



Lebenswissenschaftliche Fakultät

## Fachspezifische Studien- und Prüfungsordnung für den Masterstudiengang Organismal Biology, Biodiversity and Evolution

Überfachlicher Wahlpflichtbereich für andere  
Masterstudiengänge

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Herausgeber: Die Präsidentin der Humboldt-Universität zu Berlin  
Unter den Linden 6, 10099 Berlin

**Nr. 9/2021**

Satz und Vertrieb: Abteilung Kommunikation, Marketing und  
Veranstaltungsmanagement

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# Fachspezifische Studienordnung für den Masterstudiengang „Organismal Biology, Biodiversity and Evolution“

Gemäß § 17 Abs. 1 Ziffer 3 der Verfassung der Humboldt-Universität zu Berlin in der Fassung vom 24. Oktober 2013 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 47/2013) hat der Fakultätsrat der Lebenswissenschaftlichen Fakultät am 11. Dezember 2019 die folgende Studienordnung erlassen\*:

- § 1 Anwendungsbereich
- § 2 Beginn des Studiums
- § 3 Ziele des Studiums
- § 4 Lehrveranstaltungsarten
- § 5 Module des Studiums
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**Anlage 1:** Modulbeschreibungen

**Anlage 2:** Spezielle Arbeitsleistungen

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## § 1 Anwendungsbereich

Diese Studienordnung enthält die fachspezifischen Regelungen für den Masterstudiengang Organismal Biology, Biodiversity and Evolution. Sie gilt in Verbindung mit der fachspezifischen Prüfungsordnung für den Masterstudiengang Organismal Biology, Biodiversity and Evolution und der Fächerübergreifenden Satzung zur Regelung von Zulassung, Studium und Prüfung (ZSP-HU) in der jeweils geltenden Fassung.

## § 2 Beginn des Studiums

Das Studium kann zum Wintersemester aufgenommen werden. Ein Studium nach dem Studienverlaufsplan gemäß Anlage 3 ist nur möglich, wenn das Studium zum Wintersemester aufgenommen wird.

## § 3 Ziele des Studiums

(1) Studierende des internationalen, forschungsorientierten Masterstudiengangs Organismal Biology, Biodiversity and Evolution sollen dazu befähigt werden, modernste molekulare, physiologische und populationsbiologische Methoden kompetent anzuwenden, wissenschaftliche Erkenntnisse kritisch einzuordnen sowie verantwortlich damit umzugehen. Ein besonderer Schwerpunkt liegt auf

der Vermittlung quantitativer biologischer Zusammenhänge und Techniken zur quantitativen Analyse von Organismen, Biodiversität und evolutionärer Prozesse. Das Lehrangebot umfasst ein Pflichtmodul, das der Vertiefung von biologischem Fachwissen im Kontext der Evolution dient. Dieses Modul wird in einem weiteren Semester durch sammlungsbasierte oder freilandorientierte Studien praktisch vertieft. Eine Schwerpunktbildung wird durch die Wahl von Spezialisierungsmodulen erreicht, die es den Studierenden ermöglichen, Kompetenzen in den Bereichen Biodiversität, Makroevolution, Wirbeltiermorphologie, Verhaltens- und Neurobiologie, marine Biodiversität und der Systematik des Tier- und Pflanzenreiches zu erwerben. Die Untersuchungsansätze reichen von der zellulär-organismischen über die populationsbiologische Ebene bis zu komplexen Organismen und Artengemeinschaften. Eine frühzeitige Einbindung in Forschungsprojekte wird über intensive praktische Arbeiten innerhalb eines Projektmoduls erreicht. Im Rahmen dieses Masterstudiums wird den Studierenden die Möglichkeit geboten, sich Schlüsselqualifikationen wie Sprachkenntnisse, Methoden- und Informationskompetenzen durch das Modulangebot des überfachlichen Wahlpflichtbereiches anzueignen.

(2) Dieses Studienprogramm soll die Absolventinnen und Absolventen in die Lage versetzen, forschungsorientierte Tätigkeiten an Hochschulen, außeruniversitären Forschungseinrichtungen, in der Industrie, in Behörden oder nicht-staatlichen Organisationen auszuüben. Diese Institutionen verlangen häufig zusätzlich die Promotion, wofür der Master of Science die Grundlage bildet.

## § 4 Lehrveranstaltungsarten

Lehrveranstaltungsarten sind über die in der ZSP-HU benannten Lehrveranstaltungsarten hinaus auch das Studienprojekt.

### Studienprojekt/Study Project (SPJ)

Studienprojekte (SPJ) dienen der Anwendung der im Studium erworbenen Kenntnisse und Fähigkeiten. Es kann individuell oder als Gruppenarbeit durchgeführt werden. Im Rahmen des Studienprojektes erproben die Studierenden anhand eines ausgewählten Themas die Methodik wissenschaftlichen Arbeitens. Sie erwerben Qualifikationen in der Darstellung wissenschaftlicher Erkenntnisse und in der interdisziplinären Zusammenarbeit.

\* Die Universitätsleitung hat die Studienordnung am 20. August 2020 bestätigt.

## § 5 Module des Studiums

Der Masterstudiengang Organismal Biology, Biodiversity and Evolution beinhaltet folgende Module im Umfang von insgesamt 120 LP:

### (a) Pflichtbereich (70 LP)

OBBE 1: Biodiversity and Evolution 1 (Theory) (10 LP)  
OBBE 13: Study Project (20 LP)  
OBBE 14: Communicating Science (10 LP)  
OBBE 15: Final Module / Master Thesis (30 LP)

### (b) Fachlicher Wahlpflichtbereich (40 LP)

Der fachliche Wahlpflichtbereich besteht aus drei Bereichen:

Aus dem fachlichen Wahlpflichtbereich 1 (20 LP) müssen zwei Module gewählt werden:

OBBE 2: Soil Ecosystems as Biodiversity Hot Spot (10 LP)  
OBBE 3: Cognition, Evolution and Behaviour (10 LP)  
OBBE 4: Macroevolution and Biodiversity (10 LP)  
OBBE 5: Evolution, Structure and Function of Land-living Vertebrates (10 LP)  
OBBE 6: Special Topics in Organismal Biology 1 (10 LP)

Aus dem fachlichen Wahlpflichtbereich 2 (10 LP) muss ein Modul gewählt werden:

OBBE 7: Biodiversity and Evolution 2 (Practice) – Collections (10 LP)  
OBBE 8: Biodiversity and Evolution 2 (Practice) – Fieldstudies (10 LP)

Aus dem fachlichen Wahlpflichtbereich 3 (10 LP) muss ein Modul gewählt werden:

OBBE 9: Marine Biodiversity (10 LP)  
OBBE 10: Plant Systematics and Evolution (10 LP)  
OBBE 11: Behavioural Physiology (10 LP)  
OBBE 12: Special Topics in Organismal Biology 2 (10 LP)

### (c) Überfachlicher Wahlpflichtbereich (10 LP)

Im überfachlichen Wahlpflichtbereich sind Mastermodule aus den hierfür vorgesehenen Modulkatalogen anderer Fächer oder zentraler Einrichtungen im Umfang von insgesamt 10 LP nach freier Wahl zu absolvieren.

## § 6 Module für den überfachlichen Wahlpflichtbereich anderer Masterstudiengänge

Für den überfachlichen Wahlpflichtbereich anderer Masterstudiengänge werden folgende Module angeboten:

OBBE üWP 1: From Evolution to Biodiversity (10 LP)  
OBBE üWP 2: From Form to Function and Biodiversity (10 LP)

## § 7 In-Kraft-Treten

(1) Diese Studienordnung tritt am 1. Oktober 2021 in Kraft.

(2) Diese Studienordnung gilt für alle Studentinnen und Studenten, die ihr Studium nach dem In-Kraft-Treten dieser Studienordnung aufnehmen oder nach einem Hochschul-, Studiengangs- oder Studienfachwechsel oder einer Wiederimmatrikulation fortsetzen.

(3) Für Studentinnen und Studenten, die ihr Studium vor dem In-Kraft-Treten dieser Studienordnung aufgenommen oder nach einem Hochschul-, Studiengangs- oder Studienfachwechsel oder einer Wiederimmatrikulation fortgesetzt haben, gilt die Studienordnung vom 16. Juni 2008 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 27/2008), zuletzt geändert am 01. Februar 2012 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 04/2012), übergangsweise fort. Alternativ können sie diese Studienordnung einschließlich der zugehörigen Prüfungsordnung wählen. Die Wahl muss schriftlich gegenüber dem Prüfungsbüro erklärt werden und ist unwiderruflich. Mit Ablauf des 30. September 2023 tritt die Studienordnung vom 16. Juni 2008 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 27/2008), zuletzt geändert am 01. Februar 2012 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 04/2012), außer Kraft. Das Studium wird dann auch von den in Satz 1 benannten Studentinnen und Studenten nach dieser Studienordnung fortgeführt. Bisherige Leistungen werden entsprechend § 110 ZSP-HU berücksichtigt.

**Anlage 1: Modulbeschreibungen**

L = Lecture, SE = Seminar, MSE = Main seminar, PR = Practical course, CO = Colloquium, SPJ = Study Project

**Pflichtmodule/Compulsory modules:**

<b>OBBE 1: Biodiversity and Evolution 1 (Theory)</b>		credits: 10	
Learning Objectives: Students will have in-depth theoretical knowledge and case studies overview of the fundamentals of biodiversity, the underlying ecological principles, and its transformation through evolutionary forces.			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>4 SWS</u> <u>180 hours</u> 45 hours attendance time, 135 hours preparation of the course	6 credits, participation	Lecture on Biodiversity and Evolution: Advanced topics of biodiversity, ecology, human ecology and evolution. Overview of the research topics of the participating research groups. Introduction to collection-based research; assessment, documentation and discovery of biodiversity; comparative analysis of biological forms, collection management; historical/problematic aspects of the establishment of research collections
SE	<u>1 SWS</u> <u>90 hours</u> 15 hours attendance time, 75 hours preparation of the course and special working task	3 credits, participation and special working task, group 2	Selected topics from research on evolution and biodiversity; consolidation of the basic understanding of the contents of the lecture. Preparation and presentation of selected articles from the original literature in lectures. Critical analysis and discussion of the content
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

<b>OBBE 13: Study Project</b>		credits: 20	
Learning objectives: Students - are able to describe a scientific problem, either self-chosen or handed out by the instructor - are able to develop an approach to the solution of the problem - are able to conduct experiments to test different hypotheses - are able to draw basic conclusions on the basis of experimental data and - are able to present and discuss the obtained results in a written and oral manner.			
Conditions: successful completion of module OBBE 1, and two modules out of OBBE 2 to OBBE 6			
Teaching formats	Hours per week, workload in hours	Credits and conditions for granting	Topics, contents
Study project	<u>600 hours</u> 375 hours attendance time, 225 hours of preparation of the course and the special working task	20 credits, participation, special working task (protocol approx. 20 pages, 36.000 characters incl. spaces)	Individual work on a scientific project, that has to be related to the theoretical and experimental topics of this master programme
Final exam	None		
Duration of module	<input type="checkbox"/> 1 semester <input checked="" type="checkbox"/> 2 semesters		
Beginning of module	<input checked="" type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

<b>OBBE 14: Communicating Science</b>		credits: 10	
<p>Learning Objectives: The students know the most important types of scientific publications and the major sources to acquire them. They are able to critically evaluate the quality of publications and to apply the criteria of good scientific practice. Students have competence in data handling, statistics and scientific writing. They can present their own research results in a logical and clear way and can contribute to scientific discussions. Students have the skills to organize scientific meetings.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
SE-1	<u>2 SWS</u> <u>120 hours</u> 25 hours attendance time, 95 hours preparation of the course and special working task	4 credits, participation and special working task, group 2	Types and structures of scientific publications, literature research, principles and practice of scientific writing, good scientific practice, rights and duties of authors, copyright, techniques in scientific presentation, data analysis, statistical tools
SE-2	<u>2 SWS</u> <u>150 hours</u> 25 hours attendance time, 125 hours preparation of the course and special working task	5 credits, participation and special working task (4 credits): Organisation and realization of a two-day workshop (planning, preparation, invitation, correspondence: 90 hours, participation, session chairing: 30 hours, preparation of abstract booklet: 60 hours)	Workshop planning, selection of topics and sessions, speakers invitation, organising of contributions and presentation styles (oral, poster), media selection, time management, compilation of a scientific programme, chairing a session, presentation of own data and results
Final exam	Written exam (90 min) or oral exam (30 min) or portfolio (protocol/s, in all 18 pages, 32.400 characters incl. spaces) or spectrum (20 minutes and 2 pages / 3.600 characters including spaces)	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

<b>OBBE 15: Final Module / Master Thesis</b>		credits 30	
Learning Objectives: Students are able to plan and conduct a scientific project from a biological discipline at current research standards independently.			
Preconditions: Successful completion of module OBBE 1, two modules out of OBBE 2 to OBBE 6, and one module out of OBBE 7 to OBBE 8			
Teaching formats	Hours per week, workload in hours	Credits and conditions for granting	Topics, contents
CO	<u>1 SWS</u>  30 hours 15 hours attendance time, 15 hours preparation of the course	1 credit, participation	Specific knowledge in a current research topic of a biological discipline.
Master Thesis	870 hours	29 credits, pass	The processing time for the Master Thesis is 24 weeks, written thesis approx. 40 pages / approx. 72.000 characters incl. spaces)
Duration of module	<input type="checkbox"/> 1 semester <input checked="" type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

**Fachlicher Wahlpflichtbereich 1:**

<b>OBBE 2: Soil Ecosystems as Biodiversity Hot Spot</b>			credits: 10
<p>Learning Objectives: The students have in-depth understanding in soil as habitat for complex organismic assemblages and their interactions. They have gained insight into the belowground biodiversity and the characteristics of dominant groups of prokaryotes and animals. Students can specify the importance of the structure and function of microbial and faunal communities for soil processes. They know classic and modern methods for the analyses and evaluation of soil ecosystems.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Soil zoology, key biota for soil processes, methods in soil biology, interactions between microorganisms, fauna & plants, food webs
SE	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course and special working task	2 credits, participation and special working task, group 1	Ecosystem ecology in terrestrial habitats, biodiversity, bioindication, anthropogenic impact, interspecific interactions, food web ecology, trophic biochemical markers
PR	<u>4 SWS</u> <u>150 hours</u> 45 hours attendance time, 105 hours preparation of the course and special working task	5 credits, participation and special working task, group 3	Analysis of the trophic interactions of the soil fauna, application of biochemical markers, lipid analysis, food quality (C/N) assignment, determination of feeding strategies  Methods: element analysis, gas chromatography, mass spectrometry
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

<b>OBBE 3: Cognition, Evolution and Behaviour</b>			credits: 10
Learning Objectives: Students will have in-depth theoretical and practical knowledge of the fundamentals of mammalian behaviour in the context of evolutionary adaptation and will be able to apply this knowledge to the planning, execution and analysis of behavioural analysis experiments.			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Overview of the basic mechanisms and elements of behaviour, especially in vertebrates. Basics of animal psychology. Evolutionary adaptation of behavioural programs in the ecological context.
SE	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course and special working task	2 credits, participation and special working task, group 1	Seminar: Research on Animal Cognition, and R programming for Data Analysis  Part I: Consolidation of the basic understanding of the contents of the lecture. Preparation and presentation of selected articles from the original literature in lectures. Critical analysis and discussion of the contents.  Part II: Introduction to data analysis with R
PR	<u>4 SWS</u> <u>150 hours</u> 45 hours attendance time, 105 hours preparation of the course and special working task	5 credits, participation and special working task, group 3	Laboratory research: Behaviour Analysis with Automated Operant Conditioning  Formulation of a working hypothesis, planning and execution of experiments to test the working hypothesis from the field of animal behaviour. Use of voluntary operant methods with mammals based on computer-operated behavioural experiments. Data analysis with R. Exercise in experimental research manuscript writing, reviewing and editing.
Final exam	<u>30 hours</u>  Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

<b>OBBE 4: Macroevolution and Biodiversity</b>		credits: 10	
<p>Learning Objectives: Students acquire in-depth knowledge about the major topics of evolutionary biology, with special focus on macroevolution and biodiversity research, and are familiar with current research fields and concepts. They know and apply state-of-the-art approaches such as phylogenetic analyses, phylogenetic comparative methods, macroevolutionary approaches, and biodiversity analyses to study evolutionary patterns and processes across space and time.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Introduction to the conceptual and methodological approaches of evolutionary biology, macroevolution and biodiversity; history of the field; classical model systems.
SE	<u>2 SWS</u> <u>90 hours</u> 25 hours attendance time, 65 hours preparation of the course and special working task	3 credits, participation and special working task, group 1	Presentation and discussion of original literature in the field of evolutionary biology, macroevolution and biodiversity. Consolidation of the content of the lecture series.
PR	<u>4 SWS</u> <u>120 hours</u> 45 hours attendance time, 75 hours preparation of the course and special working task	4 credits, participation and special working task, group 2	Introduction to macroevolutionary approaches, biodiversity analyses, phylogenetic-comparative methods and computer-assisted phylogenetic analyses using molecular, morphological, and fossil data.
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

<b>OBBE 5: Evolution, Structure and Function of Land-living Vertebrates</b>			credits: 10
<p>Learning Objectives: Students acquire basic knowledge in the analysis of vertebrate form and function. Examples will focus on the locomotor apparatus. Students become familiarised with state-of-the art experimental research approaches to motion analysis (kinematics and dynamics) and are able to critically evaluate evolutionary aspects of form-function relationships. Further, students acquire methodological expertise to characterise muscles and bones of the vertebrate body from a perspective of functional morphology.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Introduction to functional morphology; evolutionary changes to the locomotor apparatus during the vertebrate transition to land; evolution, structure and function of the postcranium in Lissamphibia, Sauropsida, Archosauria and Mammalia; evolutionary adaptations to flying and gliding, swimming and diving, running and climbing, and digging
SE	<u>2 SWS</u> <u>90 hours</u> 25 hours attendance time, 65 hours preparation of the course and special working task	3 credits, participation and special working task, group 1	Presentation and discussion of original literature in the field of functional morphology of vertebrates. Consolidation of the content of the lecture series.
PR	<u>4 SWS</u> <u>120 hours</u> 45 hours attendance time, 75 hours preparation of the course and special working task	4 credits, participation and special working task, group 2	Motion analysis with acquisition of kinematic and dynamic data; data analysis and interpretation; digitisation of bones using laser-surface scanning, photogrammetry and computed-tomography; preparation of muscles and analysis of muscle architectural properties
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

OBBE 6: Special Topics in Organismal Biology 1			credits: 10
<p>Learning objectives: the module is offered by professors and lecturers in Biology on a current topic in a biological discipline. The students acquire in-depth theoretical and experimental knowledge in a current and specific biological discipline. They gain insight into results and current scientific questions in biological research and are able to critically evaluate the literature. By that students acquire the ability of an independent judgement of research in an interdisciplinary context.</p>			
<p>Preconditions: none</p>			
Teaching format	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Specific knowledge in a biological discipline
SE	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course and special working task	2 credits, participation and special working task, group 1	Consolidation of the knowledge acquired in the lecture
PR	<u>4 SWS</u>  <u>150 hours</u> 45 hours attendance time, 105 hours preparation of the course and special working task	5 credits, participation and special working task, group 3	Experimental or theoretical courses in a biological discipline
Final exam	<u>30 hours</u>  Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <span style="margin-left: 200px;"><input type="checkbox"/> 2 semesters</span>		
Start of module	<input checked="" type="checkbox"/> winter semester <span style="margin-left: 100px;"><input checked="" type="checkbox"/> summer semester</span> The module is not offered on a regular basis. Further information about the current teaching programmes is available on AGNES.		

**Fachlicher Wahlpflichtbereich 2:**

<b>OBBE 7: Biodiversity and Evolution 2 (Practice) - Collections</b>		credits: 10	
<p>Learning Objectives: Collections are valuable archives of biodiversity and thus a prerequisite for conservation efforts. They further hold the potential for the discovery of new species and offer the opportunity to gain insight into evolutionary processes. Students acquire basic knowledge of collection-based research approaches. Important biological research collections in Berlin will be visited. Examples will encompass botanical and zoological collections and important specimens. In addition to research questions, also aspects of collection and data management will be introduced. Students will also be acquainted with potentially problematic historic aspects of the establishment of collections in the past to enable a critical reflection.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
MSE	<u>1 SWS</u> <u>120 hours</u> 15 hours attendance time, 105 hours preparation of the course and special working task	4 credits, participation and special working task, group 3	Presentation and discussion of original literature in the field of collection-based research. Consolidation of the content of the lecture series.
PR	<u>6 SWS</u> <u>150 hours</u> 70 hours attendance time, 80 hours preparation of the course and special working task	5 credits, participation and special working task, group 2	Comparative analyses of specimens from research collections (morphometrics, 3D geometric morphometrics, phylogenetic comparative methods, macro-evolutionary modelling); visiting diverse collections (Zool. Lehrsammlung, MfN, Arboretum, ...); practical aspects of collection management (preparation, documentation, revision, indexing, digitalisation)
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

<b>OBBE 8: Biodiversity and Evolution 2 (Practice) – Fieldstudies</b>		Credits: 10	
<p>Learning Objectives: Fieldwork is the foundation of organismic biology. Students apply field biological methods to gather data and collect specimens. They develop an understanding of geographic, climatic, edaphic and biotic factors governing the diversity and composition of organismic communities and comprehend functional adaptations of organisms to their environment. Students gain insight into the evolution of biodiversity and organismic communities in time and space and are able to assess the conservation status of ecosystems by analysing their organismic inventory. Students acquire basic knowledge of collection-based research approaches. In addition to research questions, also aspects of collection and data management will be introduced. Students will also be acquainted with potentially problematic historic aspects of the establishment of collections in the past to enable a critical reflection.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
MSE	<u>1 SWS</u>  <u>120 hours</u> 15 hours attendance time, 105 hours preparation of the course and special working task	4 credits, participation and special working task, group 3	Presentation and discussion of original literature concerning the biodiversity, biogeography and ecology of the fieldwork sites. Consolidation of the content of the lecture series
PR	<u>6 SWS</u>  <u>150 hours</u> 70 hours attendance time, 80 hours preparation of the course and special working task	5 credits, participation and special working task, group 2	Biological fieldwork in selected sites to study the current biodiversity and organismic communities related to governing biotic and abiotic conditions and earth history; addressing current research questions using field biological methods and collecting data and specimens for the natural history collections of involved institutions
Final exam	<u>30 hours</u>  Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

**Fachlicher Wahlpflichtbereich 3:**

<b>OBBE 9: Marine Biodiversity</b>		credits: 10	
<p>Learning Objectives: Students are familiar with marine biotas, and know about relevant abiotic, oceanographic, and biotic factors shaping marine ecosystems. They recognize the functional interdependencies and characteristics of different marine biotas. In the field, students learn to localize and identify common marine species. At a Marine Biological Laboratory, students are schooled in practical methods and techniques to collect, culture, and identify marine organisms. They notice ecological dependencies and learn how to scientifically investigate them. Students are enabled to plan and execute a scientific experiment. They become experienced in gathering new data and analyze them adequately. Students practice scientific communication by presenting their research in a talk and as a publishable manuscript.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Introduction to Marine habitats and their Organismic Diversity
MSE	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course and special working task	2 credits, participation and special working task, group 1	Introduction to Experimental Marine Biology: Learning about Scientific Experiments in a Marine Setting through Study of Primary Literature, Oral Presentation, and Discussions
PR	<u>4 SWS</u>  <u>150 hours</u> 45 hours attendance time, 105 hours preparation of the course and special working task	5 credits, participation and special working task, group 3	Marine Biology Field Trip: Analysis of Marine Biodiversity and Functional Correlations by Completing a Scientific Project
Final exam	<u>30 hours</u>  Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

OBBE 10: Plant Systematics and Evolution			credits: 10
Learning Objectives: Students acquire in depth knowledge on the diversity and evolution of land plants. They know and apply state-of-the-art molecular, phylogenetic and morphological methods to analyse the diversity and evolution of land plants using living and conserved collections of extant and fossil plants.			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u> <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Topics and methods in plant systematics and evolution: Diversity and evolution of land plants; introduction to molecular, phylogenetic and morphological methods in plant systematics and evolution.
MSE	<u>2 SWS</u> <u>90 hours</u> 25 hours attendance time, 65 hours preparation of the course and special working task	3 credits, participation and special working task, group 1	Selected topics in plant systematics and evolution: Presentation and discussion of original literature in the field of plant systematics and evolution. Consolidation of the content of the lecture series
PR	<u>4 SWS</u> <u>120 hours</u> 45 hours attendance time, 75 hours preparation of the course and special working task	4 credits, participation and special working task, group 2	Plant systematics and evolution: Acquisition of molecular and morphological data and data analysis in the context of current research in plant systematics and evolution.
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	The examination will refer to the content of the lecture and the practical
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

<b>OBBE 11: Behavioural Physiology</b>		credits: 10	
<p>Learning Objectives: The students have advanced knowledge of the physiological basis of animal behaviour and improve their skills of critically reading scientific literature and presenting scientific data. The students get insight into the development of a scientific question and the design of a corresponding experiment. They acquire the ability to run neuroethological experiments with animals and analyse the resulting data. Based on the acquired methodological skills, they are able to work independently on scientific questions, analyse the results, and present their analysis.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	<u>Animal behaviour and its neural and physiological basis</u> : sensory processing and coordination of motor activities, orientation and communication behaviour, decision making, current topics in behavioural physiology
SE	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course and special working task	2 credits, participation and special working task, group 1	<u>Current topics in behavioural physiology</u> : presentation and discussion of original research literature
PR	<u>4 SWS</u>  <u>150 hours</u> 45 hours attendance time, 105 hours preparation of the course and special working task	5 credits, participation and special working task, group 3	<u>Laboratory course in neuroethology</u> : experiments on behaviour and its neural and physiological basis and analysis of the resulting data
Final exam	<u>30 hours</u>  Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester		

<b>OBBE 12 Special Topics in Organismal Biology 2</b>		credits: 10	
<p>Learning objectives: the module is offered by professors and lecturers in Biology on a current topic in a biological discipline. The students acquire in-depth theoretical and experimental knowledge in a current and specific biological discipline. They gain insight into results and current scientific questions in biological research and are able to critically evaluate the literature. By that students acquire the ability of an independent judgement of research in an interdisciplinary context.</p>			
<p>Preconditions: none</p>			
Teaching format	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course	2 credits, participation	Specific knowledge in a biological discipline
MSE	<u>2 SWS</u>  <u>60 hours</u> 25 hours attendance time, 35 hours preparation of the course and special working task	2 credits, participation and special working task, group 1	Consolidation of the knowledge acquired in the lecture
PR	<u>4 SWS</u>  <u>150 hours</u> 45 hours attendance time, 105 hours preparation of the course and special working task	5 credits, participation and special working task, group 3	Experimental or theoretical courses in a biological discipline
Final exam	<u>30 hours</u>  Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input checked="" type="checkbox"/> summer semester The module is not offered on a regular basis. Further information about the current teaching programmes is available on AGNES.		

**Überfachlicher Wahlpflichtbereich (ÜWP) für andere Masterstudiengänge:**

<b>OBBE üWP 1: From Evolution to Biodiversity</b>			credits: 10
Learning Objectives: Students will have in-depth theoretical knowledge and case studies overview of the fundamentals of biodiversity, the underlying ecological principles and its transformation through evolutionary forces.			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L “OBBE 1: Biodiversity and Evolution 1 (Theory)”	<u>4 SWS</u> <u>180 hours</u> 45 hours attendance time, 135 hours preparation of the course	6 credits, participation	Lecture on Biodiversity and Evolution: Advanced topics of biodiversity, ecology, human ecology, and evolution. Overview of the research topics of the participating research groups. Introduction to collection-based research; assessment, documentation and discovery of biodiversity; comparative analysis of biological forms, collection management; historical/problematic aspects of the establishment of research collections
SE	<u>1 SWS</u> <u>90 hours</u> 15 hours attendance time, 75 hours preparation of the course and special working task	3 credits, participation and special working task, group 2	Selected topics from research on evolution and biodiversity; consolidation of the basic understanding of the contents of the lecture. Preparation and presentation of selected articles from the original literature in lectures. Critical analysis and discussion of the content
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

<b>OBBE-ÜWP 2: From Form to Function and Biodiversity</b>		credits: 10	
<p>Learning Objectives: Students acquire basic knowledge in the analysis of vertebrate form and function. Examples will focus on the locomotor apparatus. Students become familiarised with state-of-the-art experimental research approaches to motion analysis (kinematics and dynamics) and are able to critically evaluate evolutionary aspects of form-function relationships. Further, students acquire methodological expertise to characterise muscles and bones of the vertebrate body from a perspective of functional morphology. Students acquire in-depth knowledge about the major topics of evolutionary biology, with special focus on macroevolution and biodiversity research, and are familiar with current research fields and concepts. They know and apply state-of-the-art approaches such as phylogenetic analyses, phylogenetic comparative methods, macroevolutionary approaches, and biodiversity analyses to study evolutionary patterns and processes across space and time.</p>			
Preconditions: none			
Teaching formats	Hours per week, workload in hours	Credits and pre-conditions for granting	Topics, contents
L "OBBE 4: Macro-evolution and Biodiversity"	<u>2 SWS</u> <u>90 hours</u> 25 hours attendance time, 65 hours preparation of the course	3 credits, participation	Introduction to the conceptual and methodological approaches of evolutionary biology, macroevolution and biodiversity; history of the field; classical model systems.
L "OBBE 5: Evolution, Structure and Function of Land-living Vertebrates"	<u>2 SWS</u> <u>90 hours</u> 25 hours attendance time, 65 hours preparation of the course and special working task	3 credits, participation	Introduction to functional morphology; evolutionary changes to the locomotor apparatus during the vertebrate transition to land; evolution, structure and function of the postcranium in Lissamphibia, Sauropsida, Archosauria and Mammalia; evolutionary adaptations to flying and gliding, swimming and diving, running and climbing, and digging
SE	<u>2 SWS</u> <u>90 hours</u> 25 hours attendance time, 65 hours preparation of the course and special working task	3 credits, participation and special working task, group 1	Presentation and discussion of original literature in the field of functional morphology of vertebrates. Consolidation of the content of the lecture series. Presentation and discussion of original literature in the field of evolutionary biology, macroevolution and biodiversity. Consolidation of the content of the lecture series.
Final exam	<u>30 hours</u> Written exam (90 min) or oral exam (30 min) and preparation	1 credit, pass	
Duration of module	<input checked="" type="checkbox"/> 1 semester <input type="checkbox"/> 2 semesters		
Start of module	<input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester		

**Anlage 2: Spezielle Arbeitsleistungen<sup>1</sup>**

Special working task (1 credit = 30 h amount of work for students)	credits	Workload in hours
<b>Group 1</b>	<b>0,5</b>	<b>15</b>
Protocol/s (in all 12 pages, 21.600 characters incl. spaces) or		
3 accelerated tests (10 minutes each) or		
Talk (report or presentation of 10 minutes) or		
Solve 10 assignments or		
Prepare 10 drawings		
<b>Group 2</b>	<b>1</b>	<b>30</b>
Protocol/s (in all 18 pages, 32.400 characters incl. spaces) or		
4 accelerated tests (10 minutes each) or		
Talk (report or presentation of 20 minutes) or		
Solve 15 assignments or		
Prepare 15 drawings or		
Prepare a poster		
<b>Group 3</b>	<b>1,5</b>	<b>45</b>
Protocol/s (in all 24 pages, 43.200 characters incl. spaces) or		
5 accelerated tests (10 minutes each) or		
Talk (report or presentation of 30 minutes) or		

<sup>1</sup> At the beginning of the term the teacher decides and informs about the type of the specific workload.

**Anlage 3: Idealtypischer Studienverlaufsplan<sup>2</sup>**

Hier finden Sie eine Verteilung der Module auf die Semester, die einem idealtypischen, aber nicht verpflichtenden Studienverlauf entspricht. Ein Studium nach diesem Studienverlaufsplan ist nur möglich, wenn das Studium zum Wintersemester aufgenommen wird.

CM = Compulsory modules, EM = Elective modules, SWS = semester periods per week, ÜWP = interdisciplinary elective modules, CP = Credit Points

No. of module	Name of module	1. semester winter term	2. semester summer term	3. semester winter term	4. semester Summer term
OBBE 1 CM	Biodiversity and evolution 1 (theory)	5 SWS 10 CP			
<b>Choose two out of five in the first semester</b>					
OBBE 2 EM	Soil ecosystems as biodiversity hot spot	8 SWS 10 CP			
OBBE 3 EM	Cognition, evolution and behaviour	8 SWS 10 CP			
OBBE 4 EM	Macroevolution and biodiversity	8 SWS 10 CP			
OBBE 5 EM	Evolution, structure and function of land-living vertebrates	8 SWS 10 CP			
OBBE 6 <sup>3</sup> EM	Special Topics in Organismal Biology 1	8 SWS 10 CP			
<b>Choose one out of two in the second semester</b>					
OBBE 7 EM	Biodiversity and evolution 2 (practice) – collections		7 SWS 10 CP		
OBBE 8 EM	Biodiversity and evolution 2 (practice) – fieldstudies		7 SWS 10 CP		
<b>Choose one out of four in the second semester</b>					

<sup>2</sup> Das 2. oder 3. Semester eignet sich besonders für ein Studium an einer Universität im Ausland. Zur Vereinfachung der Anrechnung der an der ausländischen Universität erbrachten Studienleistungen und Prüfungen wird der vorherige Abschluss eines Learning Agreements empfohlen.

<sup>3</sup> The module is not offered on a regular basis. Further information about the current teaching programmes is available on AGNES.

OBBE 9 EM	Marine biodiversity		8 SWS 10 CP		
OBBE 10 EM	Plant systematics and evolution		8 SWS 10 CP		
OBBE 11	Behavioural Physiology		8 SWS 10 CP		
OBBE 12 <sup>4</sup> EM	Special Topics in Organismic Biology 2		8 SWS 10 CP		
OBBE 13 CM	Study project			375 hours experimental work 20 CP	
OBBE 14 CM	Communicating science			4 SWS 10 CP	
ÜWP EM			10 CP		
OBBE 15 CM Final Module / Master Thesis				1 SWS 30 CP	
SWS and CP per semester		21 SWS / 30 CP	15 SWS (without ÜWP) / 30 CP	375 h and 4 SWS / 30 CP	1 SWS 30 CP

<sup>4</sup> The module is not offered on a regular basis. Further information about the current teaching programmes is available on AGNES.

# Fachspezifische Prüfungsordnung für den Masterstudiengang „Organismal Biology, Biodiversity and Evolution“

Gemäß § 17 Abs. 1 Ziffer 3 der Verfassung der Humboldt-Universität zu Berlin in der Fassung vom 24. Oktober 2013 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 47/2013) hat der Fakultätsrat der Lebenswissenschaftlichen Fakultät am 11. Dezember 2019 die folgende Prüfungsordnung erlassen\*:

- § 1 Anwendungsbereich
- § 2 Regelstudienzeit
- § 3 Prüfungsausschuss
- § 4 Modulabschlussprüfungen
- § 5 Masterarbeit
- § 6 Freiversuche
- § 7 Abschlussnote
- § 8 Akademischer Grad
- § 9 In-Kraft-Treten

**Anlage:** Übersicht über die Prüfungen

## § 1 Anwendungsbereich

Diese Prüfungsordnung enthält die fachspezifischen Regelungen für den Masterstudiengang Organismal Biology, Biodiversity and Evolution. Sie gilt in Verbindung mit der fachspezifischen Studienordnung für den Masterstudiengang Organismal Biology, Biodiversity and Evolution und der Fächerübergreifenden Satzung zur Regelung von Zulassung, Studium und Prüfung (ZSP-HU) in der jeweils geltenden Fassung.

## § 2 Regelstudienzeit

Der Masterstudiengang Organismal Biology, Biodiversity and Evolution hat eine Regelstudienzeit von vier Semestern.

## § 3 Prüfungsausschuss

Für die Prüfungsangelegenheiten des Masterstudienganges Organismal Biology, Biodiversity and Evolution ist der Prüfungsausschuss des Instituts für Biologie zuständig.

## § 4 Modulabschlussprüfungen

(1) Mündliche Modulabschlussprüfungen werden in Anwesenheit einer sachkundigen Beisitzerin oder eines sachkundigen Beisitzers abgenommen, soweit nicht nach Maßgabe der ZSP-HU zwei Prüfe-

rinnen und Prüfer bestellt werden. Die Beisitzerin oder der Beisitzer beobachtet und protokolliert die Prüfung. Sie oder er beteiligt sich nicht am Prüfungsgespräch und der Bewertung.

(2) Modulabschlussprüfungen können über die in der ZSP-HU bestimmten Formen hinaus auch als Spektren abgenommen werden. Spektren bestehen aus einem mündlichen und einem schriftlichen Teil. Sie beinhalten: Multimediale Präsentation und Moderation der anschließenden Diskussion sowie einer schriftlichen Zusammenfassung der geleiteten Diskussion.

## § 5 Masterarbeit

Über die in § 97 Abs. 2 in Verbindung mit § 99 ZSP-HU getroffenen Regelungen zur Themenstellung und Begutachtung von Abschlussarbeiten hinaus muss mindestens eine Prüferin oder ein Prüfer Hochschullehrerin oder Hochschullehrer des Instituts für Biologie sein.

## § 6 Freiversuche

(1) Bestandene Modulabschlussprüfungen, die innerhalb der Regelstudienzeit angemeldet werden, können zum Zwecke der Notenverbesserung einmal wiederholt werden.

(2) Die Möglichkeit nach Abs. 1 ist auf zwei Modulabschlussprüfungen aus dem Pflichtbereich begrenzt. Für Module des fachlichen Wahlpflichtbereichs können keine Freiversuche angemeldet werden.

## § 7 Abschlussnote

(1) Die Abschlussnote des Masterstudienganges Organismal Biology, Biodiversity and Evolution wird aus den Noten der Modulabschlussprüfungen und der Note der Masterarbeit, gewichtet nach den gemäß Anlage für das Abschlussmodul ausgewiesenen Leistungspunkten, berechnet.

(2) Modulabschlussprüfungen, die nicht benotet werden oder im Rahmen einer Anrechnung mangels vergleichbarer Notensysteme lediglich als „bestanden“ ausgewiesen werden, sowie die für die entsprechenden Module ausgewiesenen Leistungspunkte werden bei den Berechnungen nach Abs. 1 nicht berücksichtigt.

\* Die Universitätsleitung hat die Prüfungsordnung am 20. August 2020 bestätigt.

(3) Werden mehr Module absolviert, als diejenigen, die gem. der Studienordnung zur Erreichung des Studienabschlusses notwendig sind, bleiben diese Module unberücksichtigt. Entscheidend für die Berücksichtigung der Module ist die zeitliche Reihenfolge der Prüfungstermine (Datum und Uhrzeit) der bestandenen Modulabschlussprüfungen.

### **§ 8 Akademischer Grad**

Wer den Masterstudiengang Organismal Biology, Biodiversity and Evolution erfolgreich abgeschlossen hat, erlangt den akademischen Grad „Master of Science“ (abgekürzt „M.Sc.“).

### **§ 9 In-Kraft-Treten**

(1) Diese Prüfungsordnung tritt am 1. Oktober 2021 in Kraft

(2) Diese Prüfungsordnung gilt für alle Studentinnen und Studenten, die ihr Studium nach dem In-Kraft-Treten dieser Studienordnung aufnehmen oder nach einem Hochschul-, Studiengangs- oder Studienfachwechsel oder einer Wiederimmatrikulation fortsetzen.

(3) Für Studentinnen und Studenten, die ihr Studium vor dem In-Kraft-Treten dieser Studienordnung aufgenommen oder nach einem Hochschul-, Studiengangs- oder Studienfachwechsel oder einer Wiederimmatrikulation fortgesetzt haben, gilt die Prüfungsordnung vom 16. Juni 2008 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 27/2008), zuletzt geändert am 01. Februar 2012 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 04/2012), übergangsweise fort. Alternativ können sie diese Prüfungsordnung einschließlich der zugehörigen Studienordnung wählen. Die Wahl muss schriftlich gegenüber dem Prüfungsbüro erklärt werden und ist unwiderruflich. Mit Ablauf des 30. September 2023 tritt die Prüfungsordnung vom 16. Juni 2008 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 27/2008), zuletzt geändert am 01. Februar 2012 (Amtliches Mitteilungsblatt der Humboldt-Universität zu Berlin Nr. 04/2012), außer Kraft. Das Studium wird dann auch von den in Satz 1 benannten Studentinnen und Studenten nach dieser Prüfungsordnung fortgeführt. Bisherige Leistungen werden entsprechend § 110 ZSP-HU berücksichtigt.

**Anlage: Übersicht über die Prüfungen<sup>5</sup>**

No. of module	Name of module	Credits	Admission requirement for examination	Type of examination, duration, scope	Grading
<b>Compulsory modules 70 credits</b>					
OBBE 1	Biodiversity and Evolution 1 (Theory)	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 13	Study Project	20	None		
OBBE 14	Communicating Science	10	None	Written exam (90 min) or oral exam (30 min) or portfolio (protocol/s, in all 18 pages, 32.400 characters incl. spaces) or spectrum (20 minutes and 2 pages / 3.600 characters including spaces)	Yes
OBBE 15	Final Module / Master Thesis	30	Successful completion of module OBBE 1, two modules out of OBBE 2 to OBBE 6, and one module out of OBBE 7 to OBBE 8	Master Thesis, 24 weeks, approx. 40 pages (approx. 72.000 characters including spaces)	Yes
<b>Elective modules 40 credits</b>					
OBBE 2	Soil Ecosystems as Biodiversity Hot Spot	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 3	Cognition, Evolution and Behaviour	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 4	Macroevolution and Biodiversity	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 5	Evolution, Structure and Function of Land-living Vertebrates	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 6	Special Topics in Organismal Biology 1	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 7	Biodiversity and Evolution 2 (Practice) - Collections	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 8	Biodiversity and Evolution 2 (Practice) - Fieldstudies	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 9	Marine Biodiversity	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 10	Plant Systematics and Evolution	10	None	Written exam (90 min) or oral exam (30 min)	Yes

<sup>5</sup> If there are different types of exams possible, the teacher decides and informs about the type of the exam at the beginning of the term.

OBBE 11	Behavioural Physiology	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE 12	Special Topics in Organismal Biology 2	10	None	Written exam (90 min) or oral exam (30 min)	Yes
<b>ÜWP = interdisciplinary elective modules 10 credits</b>					
	The interdisciplinary elective modules can be freely chosen out of the provided module catalogues other subjects or central services. The modules can be found in the study and exam regulations and in AGNES.	Overall 10	The modules have to be completed according to the rules of the other subjects or central services. If students choose modules which are not provided especially for the interdisciplinary elective field, the examination board decides upon the crediting. If students choose modules which are provided especially for the interdisciplinary elective field, the authorisation by the examination board is not necessary.		No

**Überfachlicher Wahlpflichtbereich für andere Masterstudiengänge**

No. of module	Name of module	Credits	Admission requirement for examination	Type of examination, duration, scope	Grading
OBBE üWP 1	From Evolution to Biodiversity	10	None	Written exam (90 min) or oral exam (30 min)	Yes
OBBE üWP 2	From Form to Function and Biodiversity	10	None	Written exam (90 min) or oral exam (30 min)	Yes