Curriculum for the **Master's Degree Programme in Zoology** at the Faculty of Biology of the University of Innsbruck

§ 1 Qualification profile

(1) The Master's Degree Programme in Zoology belongs to the group of studies in the Natural Sciences.

(2) The objective of the Master's Degree Programme in Zoology at the University of Innsbruck is to train students in modern methods in zoological research and their application in the research areas offered at the faculty. Key areas are development and physiology of animals on the one hand and their environmental relations, ecotoxicology and population biology on the other hand. The evolution of animals will be treated on an interdisciplinary basis. Wildlife studies will be complemented by model organisms of basal invertebrates and vertebrates on-site. Students shall acquire a general understanding of biological contexts, autonomous and integral thinking and flexibility. Based on special knowledge, the practical training is focused on the promotion of teamwork abilities and problem solving skills. As a central part of the programme, students shall acquire the necessary skills to autonomously develop scientific work and publish scientific data. The Master's Degree Programme also prepares students for doctoral studies.

(3) Graduates of the programme have career prospects in the following fields:

- Scientific activity in private companies
- Scientific activity in public and administrative institutions
- Fundamental research in Biomedicine
- Research in Zoology and teaching activity in all fields of Biology
- Activity as a certified expert
- Further activities related to other disciplines (e.g. journalism) in connection with additional qualifications

§ 2 Duration and scope

A total of 120 ECTS credits are awarded for the Master's Degree Programme in Zoology. This equals duration of 2 years (4 semesters). One ECTS credit equals a workload of 25 hours.

§ 3 Admission

(1) Completion of a relevant University Bachelor Programme or a relevant Bachelor Programme at a university of applied science, or completion of other equivalent studies at an accredited Austrian or non-Austrian post-secondary educational institution is required for admission to the Master's Degree Programme.

(2) Completion of the Bachelor Programme in Biology at the University of Innsbruck shall be deemed relevant for the purposes of para. 1 in any case.

(3) If equivalency is given in principle, and only a few elements are missing for full equivalency, the rector's office is entitled to combine the determination of equivalency with the obligation to pass certain examinations in the course of the Master's programme.

§ 4 Types of courses and maximum number of students per course

(1) With the exception of lectures (VO), all courses are courses with continuous performance assessment. Decisive factors for the maximum number of students per course and the necessary support and mentoring to students are safety aspects, available space, and necessary equipment.

(2) Courses are divided into the following types:

1. **Lecture** (VO): In this type of course, significant content and schools of thought of a special area are presented and explained by a lecturer. Maximum number of students per course: 300
2. **Practical course** (UE): Practical courses enable participants to study and apply scientific knowledge and working methods in practice. Maximum number of students per course: 8-16
3. **Lecture with integrated practical parts** (VU): Integrated course where lecture parts are combined with practical parts. Maximum number of students per course: 8-16
4. **Seminar** (SE): In guided self-study programmes, including lecture presentations, written contributions and/or scientific discussions, students reflect on subject matter and methods of a special area. Maximum number of participants: 10-30
5. **Project study** (PJ): In these courses, selected scientific methods are applied in special projects. Maximum number of students per course: 10
6. **Proseminar** (PS): Conveys basic skills in the respective subject, with active participation of students. Maximum number of participants: 15 – 20
7. **Excursion** (EX): In excursions, issues and problems of a subject are demonstrated and treated outside the premises of the university. Maximum number of students per course: 20
8. **Excursion with integrated practical parts** (EU): Integrated course where a field trip is combined with practical parts. Maximum number of students per course: 8

§ 5 Procedure for the allotment of places in courses with a limited number of participants

The following criteria shall be applied for the allotment of places in courses with a limited number of participants:

1. Presence at the preliminary meeting (personal or represented by a proxy).
2. Regular students of the Master's Programme in Zoology are to be given priority. In elective modules which also form part of the Master's Degree Programmes in Molecular Cell and Developmental Biology or Ecology and Biodiversity at the Faculty of Biology, equal criteria shall be applied for regular students of the respective programmes.
3. Date of fulfilment of the necessary admission requirement(s); students who fulfilled the admission requirement(s) at an earlier time are to be given priority
4. Number of semesters the student has been enrolled for the Master's Programme in Zoology; students who have been enrolled for a longer time are to be given priority
5. By lot.

§ 6 Mandatory and elective modules

(1) Students have to complete mandatory modules equalling a total of 25 ECTS credits and elective modules equalling a total of 67.5 ECTS credits, which is a total of 92.5 ECTS credits.

(2) The following mandatory modules must be completed:

Mandatory module 1: Selected Topics in Zoology	7.5 ECTS credits
Mandatory module 2: Instruction to Scientific Work	15.0 ECTS credits
Mandatory module 3: Master's Thesis Defence (Defensio)	2.5 ECTS credits
Required total	**25.0 ECTS credits**

(3) Students have to complete elective modules equalling a total of 67.5 ECTS credits. Of the elective modules 4, 5, 6, 23 and 24 a maximum of three can be selected.

Elective modules in the area of "Systematic Zoology"	
Elective module 1: Anatomy and Systematics of Invertebrates	7.5 ECTS credits
Elective module 2: Biology and Systematics of Terrestrial and Limnic Arthropods	7.5 ECTS credits
Elective module 3: Anatomy and Systematics of Vertebrates	7.5 ECTS credits
Elective module 4: Marine Biology I: Developmental Biology	7.5 ECTS credits
Elective module 5: Marine Biology II	7.5 ECTS credits
Elective module 6: Zoological Field Trips	7.5 ECTS credits
Elective modules in the area of "General and Functional Zoology"	
Elective module 7: Evolution and Development	7.5 ECTS credits
Elective module 8: Developmental Biology of Basal Metazoa	7.5 ECTS credits
Elective module 9: Ultrastructure of the Cell	7.5 ECTS credits
Elective module 10: Histology and Cytology	7.5 ECTS credits
Elective module 11: Cell Physiology II: Signal Transduction	7.5 ECTS credits
Elective module 12: Developmental and Circulatory Physiology	7.5 ECTS credits
Elective module 13: Molecular Physiology	7.5 ECTS credits
Elective module 14: Molecular Ecophysiology	7.5 ECTS credits
Elective module 15: Physiological Toxicology	7.5 ECTS credits
Elective module 16: Biocybernetics and Bionics	7.5 ECTS credits
Elective module 17: Molecular Ecology I: Phylogeny and Phylogeography	7.5 ECTS credits
Elective module 18: Molecular Ecology II: Population Genetics	7.5 ECTS credits
Elective module 19: Molecular Ecology III: Trophic Interactions	7.5 ECTS credits
Elective module 20: Agricultural Entomology	7.5 ECTS credits
Elective module 21: Biology of Selected Animal Groups I	7.5 ECTS credits
Elective module 22: Biology of Selected Animal Groups II	7.5 ECTS credits
Elective module 23: Alpine Zoology I	7.5 ECTS credits
Elective module 24: Alpine Zoology II	7.5 ECTS credits
Elective module 25: Scientific Project Study in Zoology	15.0 ECTS credits
Elective modules in the area of "Other Disciplines"	
Elective module 26: Theory of Science and Gender Research	7.5 ECTS credits
Elective modules 27 and 28: Modules from other Master's Programmes of the Faculty of Biology	7.5 ECTS credits each
Required total	**67.5 ECTS credits**

§ 7 Mandatory and elective modules and ECTS Credits.

(1) The following mandatory modules must be completed:

1.	Mandatory module: Selected Topics in Zoology	Sem. hours	ECTS credits
a.	**VO Current Topics in Zoology** Students will gain an insight into the current scientific environment of research in Zoology.	3	4.5
b.	**PS Current Topics in Zoology** Students will research the current scientific environment in Zoology.	2	3
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand current methods, techniques and research approaches in Zoology.		
	Admission requirements: none		

2.	Mandatory module 2: Instruction to Scientific Work	Sem. hours	ECTS credits
	PJ Instruction to Scientific Work Students are introduced to scientific methods for the design, realisation, interpretation and presentation of the Master's Thesis.	10	15
	Total	**10**	**15**
	Learning objectives: Students are able to design, elaborate and assess complex trials in the frame of their Master's Thesis.		
	Admission requirements: none		

3.	Mandatory module: Master's Thesis Defence (Defensio)	Sem. hours	ECTS credits
	Oral defence of the Master's Thesis before an examination board.		2.5
	Total		**2.5**
	Learning objectives: Students are able to assess their Master's thesis in the overall context of the Master's Programme in Zoology.		
	Admission requirements: positive completion of all other mandatory and elective modules and positive evaluation of the Master's Thesis		

(2) Students have to complete elective modules equalling a total of 67.5 ECTS credits. Of the elective modules 4, 5, 6, 23 and 24, a maximum of three can be selected.

1.	Elective module: Anatomy and Systematics of Invertebrates	Sem. hours	ECTS credits
	VU Anatomy and Systematics of Invertebrates Necropsy systematics, morphology and structure (anatomy) of selected invertebrates will be treated in lectures and by means of preparation, necropsy, live observations and sketching.	5	7.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the systematic, morphological and developmental diversity of invertebrates.		
	Admission requirements: none		

2.	Elective module: Biology and Systematics of Terrestrial and Limnic Arthropods	Sem. hours	ECTS credits
	VU Special Typology of Selected Native Terrestrial and Limnic Arthropods Typology and biology of selected native invertebrates with special focus on arthropods.	5	7.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the typology, functional morphology and biology of selected native invertebrates.		
	Admission requirements: none		

3.	Elective module: Anatomy and Systematics of Vertebrates	Sem. hours	ECTS credits
a.	**VO Comparative Vertebrate Anatomy and Systematics** Phylogeny and structure of craniates, comparison of organ systems, aspects of functional morphology, ecological role and evolutionary development.	2	3
b.	**UE Comparative Vertebrate Anatomy** Dissection and sketching of animal preparations, skeletons and histological preparations.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the systematics, phylogeny and evolutionary development of the structures of craniates.		
	Admission requirements: none		

4.	Elective module: Marine Biology I: Developmental Biology	Sem. hours	ECTS credits
a.	**SE Marine Biology – Developmental Biology** As a preparation for the course "EU Marine Biology – Developmental Biology", students will work out relevant groups of animals, regeneration in plathelminthes, annelids and nemertines, and the early development of	1	1.5

	echinoderms in short presentations.		
b.	**EU Marine Biology – Developmental Biology** Knowledge of the animal fauna of the Mediterranean, trials to regenerate plathelminthes, annelids and nemertines, and experiments on the fertilisation and early development of echinoderms.	4	6
	Total	**5**	**7.5**
	Learning objectives: Students are familiar with the fauna of the Mediterranean and able to perform experiments on marine invertebrates.		
	Admission requirements: none		

5.	**Elective module: Marine Biology II**	**Sem. hours**	**ECTS credits**
a.	**SE Marine Biology** As a preparation for the course "EU Marine Biology**"**, students will work out selected topics in short presentations.	1	1.5
b.	**EU Marine Biology** In this practical course, the marine habitat will be presented and analysed, with special focus on rocky shores. Living conditions at the littoral will be outlined and the physiological adaptations of the fauna to this habitat will be discussed.	4	6
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand basic aspects of marine habitats and analyse physiological adaptation strategies of the marine fauna.		
	Admission requirements: none		

6.	**Elective module: Zoological Field Trips**	**Sem. hours**	**ECTS credits**
a.	**SE Zoological Field Trips - Seminar** Preparative seminar for zoological field trips.	1	1.5
b.	**EU Zoological Field Trips** Excursions of several days in Austria and abroad.	4	6
	Total	**5**	**7.5**
	Learning objectives: Students are able to investigate wildlife and habitat requirements in selected biogeographical regions.		
	Admission requirements: none		

7.	**Elective module: Evolution and Development**	**Sem. hours**	**ECTS credits**
a.	**PS Evolution and Development** The significance of developmental mechanisms for modern theories on biological evolution will be explained and worked out by students.	2	3

b.	**UE Evolution and Development** Experiments will illustrate the functional conservation of developmental mechanisms in animal phylogeny.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the role of Developmental Biology in modern Evolution Theory.		
	Admission requirements: none		

8.	**Elective module: Developmental Biology of Basal Metazoa**	**Sem. hours**	**ECTS credits**
a.	**PS Developmental Biology of Basal Metazoa** Students will be familiarised with techniques to study the developmental biology of original multicellular organisms. Respective topics will be treated in depth on the basis of practical examples in the practical course "UE Developmental Biology of Basal Metazoa".	2	3
b.	**UE Developmental Biology of Basal Metazoa** Selected aspects of Experimental Embryology, Development Genetics and Genetic Expression Analysis of model systems for Developmental Biology will be studied.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to apply experimental methods and understand the scientific basis for the developmental biology of basal multicellular organisms.		
	Admission requirements: none		

9.	**Elective module: Ultrastructure of the Cell**	**Sem. hours**	**ECTS credits**
a.	**VO Introduction to Electron Microscopy** The potential of various investigative approaches in electron microscopy for fundamental research in Biology as well as for clinical research will be demonstrated in detail.	1	1.5
b.	**VU Transmission Electron Microscopy (TEM-Course)** Theoretical and practical introduction into general transmission electron microscopy. Special techniques for the preparation of viruses, bacteria and macromolecules as well as EELS/ESI-procedures will be demonstrated.	4	6
	Total	**5**	**7.5**
	Learning objectives: Students are able to apply standard preparation techniques in transmission electron microscopy (TEM) and use and operate the related equipment in theory and practice.		
	Admission requirements: none		

10.	Elective module: Histology and Cytology	Sem. hours	ECTS credits
a.	**VU Working Methods in Histological Microscopy** Introduction into histological preparation techniques and relevant microscopic procedures for Biology.	2	3
b.	**VU Methods in Histology and Scanning Electron Microscopy** Overview of the analytic preparation techniques used for histology, such as enzyme-histochemistry and immunohistochemistry, as well as an introduction to scanning electron microscopy.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to employ histological and immunohistological methods in biological research and diagnostics.		
	Admission requirements: none		

11.	Elective module: Cell Physiology II: Signal Transduction	Sem. hours	ECTS credits
a.	**VO Signal Transduction** Basics of cellular signal transduction and cell response to a modified extracellular environment	1	1.5
b.	**SE Signal Transduction** Discussion of original publications, preparation and evaluation of trials.	2	3
c.	**UE Signal Transduction** In the practical part of the course, selected signal ways as well as their activation or inhibition under certain experimental conditions will be verified.	2	3
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand and describe the principles of signal transduction on the basis of specific practical examples.		
	Admission requirements: none		

12.	Elective module: Developmental and Circulatory Physiology	Sem. hours	ECTS credits
a.	**VO Development and Flexibility of the Cardiovascular System** Aspects of the developmental biology of the cardiovascular system as well as their flexibility in embryonic, juvenile and adult stages of vertebrates, including humans.	2	3
b.	**SE Development and Flexibility of the Cardiovascular System** Literature seminar on aspects of the developmental biology of the cardiovascular system as well as their flexibility in embryonic, juvenile and adult stages of vertebrates, including humans.	1	1.5
c.	**UE Development and Flexibility of the Cardiovascular System** Practical training on aspects of the developmental biology of the cardiovascular system as well as their flexibility in embryonic and juvenile vertebrates on the basis of model vertebrates; flexibility of the adult	2	3

	cardiovascular system of humans.		
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand basic aspects of the development and flexibility of the cardiovascular system and apply and analyse non-invasive methods in the context of current research projects.		
	Admission requirements: none		

13.	**Elective module: Molecular Physiology**	**Sem. hours**	**ECTS credits**
a.	**VO Molecular Physiology** On the basis of selected genes and proteins (blood pigments, digestive enzymes, detoxification molecules), students shall develop an understanding of basic physiologic mechanisms, with particular focus on the relationship between gene regulation, protein expression and function on a cellular and organismic level.	2	3
b.	**SE Molecular Physiology** Literature seminar to expand and deepen the students' understanding of processes in molecular physiology, with particular focus on the relationship between gene regulation, protein expression and function on a cellular and organismic level.	1	1.5
c.	**UE Molecular Physiology** Practical course to deepen the students' understanding of processes in molecular physiology, with particular focus on the relationship between gene regulation, protein expression and function on a cellular and organismic level.	2	3
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand and evaluate correlations between molecular and physiologic processes.		
	Admission requirements: none		

14.	**Elective module 20: Molecular Ecophysiology**	**Sem. hours**	**ECTS credits**
a.	**SE Molecular Ecophysiology** The impact of environmental factors such as oxygen deficiency, changes in temperature, light exposure or food availability on gene expression in different tissues and organisms; discussion of the resulting physiological adaptations, on the basis of original and current publications; preparation and evaluation of trials.	2	3
b.	**UE Molecular Ecophysiology** On the basis of selected examples, changes in gene expression in defined stress situations will be verified.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to analyse the impact of changed environmental conditions on gene expression and understand the significance of these changes in expression for physiological		

	adaptation
	Admission requirements: none

15.	**Elective module: Physiological Toxicology**	**Sem. hours**	**ECTS credits**
a.	**VO Physiologic Toxicology** Investigation of physiological effects caused by physical, chemical and toxic stress as well as cellular and organismic strategies for stress management and detoxification.	2	3
b.	**SE Physiologic Toxicology** Literature seminar to deepen the students' understanding of strategies and mechanisms for stress management and detoxification.	1	1.5
c.	**UE Physiologic Toxicology** Practical course to deepen the students' understanding of strategies and mechanisms for stress management and detoxification.	2	3
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand and analyse basic aspects of the continuum of the reaction spectrum of animals from homeostasis and stress to toxicity.		
	Admission requirements: none		

16.	**Elective module: Biocybernetics and Bionics**	**Sem. hours**	**ECTS credits**
a.	**VO Biological Cybernetics and Bionics** Biological cybernetics is the science which deals with the control and control processes in organisms and ecosystems. Bionics deals with the deciphering of "inventions of nature life" and its innovative technology transfer. This course is an Introduction to these interdisciplinary areas with examples.	2	3
b.	**SE Biological Cybernetics and Bionics** Training of oral presentations and discussion of current original literature in the field of biological cybernetics and bionics.	1	1.5
c.	**VU Biological Cybernetics and Bionics** Practical course to biological cybernetics and bionics. Introduction to the computer based simulation and evaluation of biological control processes. Examination of simple biological systems and its technology transfer.	2	3
	Total	**5**	**7.5**
	Learning objectives: The student is able to understand basic biological control processes and to use the experimental examination and simulation with computer-aided methods.		
	Admission requirements: none		

17.	**Elective module: Molecular Ecology I: Phylogeny and Phylogeography**	**Sem. hours**	**ECTS credits**
a.	**SE DNA-Sequences in Cutting-edge Research in Molecular Ecology** Discussion of current publications on the use of DNA sequences in	1	1.5

	Molecular-Ecological Research.		
b.	**VO DNA-Sequences in Molecular Ecology** Background to DNA sequence analysis, application fields in ecology, e.g. in connection with research of biodiversity, co-evolution, biological invasions, forensics, environmental genomics	1	1.5
c.	**UE Laboratory & Evaluation of DNA-Sequences in Molecular Ecology** Extraction, PCR, electrophoresis, sequencing, primer design, evaluation, e.g. base-calling, databases, alignments, phylogenetic reconstruction	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to perform DNA sequence analyses in molecular-ecological research and understand different methods of phylogenetic reconstruction.		
	Admission requirements: none		

18.	**Elective module: Molecular Ecology II: Population Genetics**	**Sem. hours**	**ECTS credits**
a.	**SE DNA-Fragment Analysis in Cutting-edge Research in Molecular Ecology** Discussion of current publications on the use of DNA fragment analysis in Molecular-Ecological Research.	1	1.5
b.	**VO DNA-Fragment Analysis in Molecular Ecology** Background to DNA fragment analysis; application fields in ecology, e.g. in connection with behavioural ecology, social biology, conservation genetics, fisheries science, mutualism.	1	1.5
c.	**UE Laboratory & Evaluation of DNA Fragments in Molecular Ecology** Extraction, PCR, genotyping (microsatellites or AFLPs) Evaluation, e.g. allele-calling, population differentiation, gene flow, kinship-analysis.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to perform DNA fragment analyses in molecular ecological research, understand the population-genetic background and are familiar with the fields of application.		
	Admission requirements: none		

19.	**Elective module: Molecular Ecology III: Trophic Interactions**	**Sem. hours**	**ECTS credits**
a.	**SE Molecular Analysis of Trophic Interactions** Seminar on the molecular analysis of trophic interactions, discussion of current issues arising from the molecular analysis of feeding relations on the basis of primary literature.	1	1.5
b.	**VO Molecular Analysis of Trophic Interactions** Theoretical basics for the molecular analysis of feeding relations. Furthermore, other areas of molecular identification as well as DNA bar-coding and ancient DNA will be treated.	1	1.5
c.	**UE Molecular Analysis of Trophic Interactions**	3	4.5

	Students will acquire skills in molecular diagnostic techniques (e.g. DNA extraction, DNA quantification, PCR, electrophoretic techniques, sequencing, processing and identification of sequences, primer design).		
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the theoretical foundations of the molecular analysis of feeding relations and implement molecular, diagnostic techniques (e.g. DNA extraction, DNA quantification, PCR, electrophoretic techniques, sequencing, processing and identification of sequences, primer design).		
	Admission requirements: none		

20.	**Elective module: Agricultural Entomology**	**Sem. hours**	**ECTS credits**
a.	**VU Agricultural Entomology** Biology, ecology and typology of agriculturally important arthropods (varmints and beneficial organisms).	2	3
b.	**EX Agricultural Entomology – Field Trip**	1	1.5
c.	**VO Biological Control** Major tendencies in biological pest control, biology of harmful animal organisms and their interaction with natural opponents.	2	3
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the biology, ecology and typology of agriculturally important arthropods (varmints and beneficial organisms) as well as the concepts of biological pest control.		
	Admission requirements: none		

21.	**Elective module: Biology of Selected Animal Groups I**	**Sem. hours**	**ECTS credits**
a.	**VO Parasitology** Introduction into parasitology, defence mechanisms of the host (resistance, immunity), presentation of human pathogenic animal parasites.	2	3
b.	**VO Biology of Primates** This lecture looks at social dynamics in the cohabitation of primates. Relations between ecology, social organisation and evolutionary development processes will be outlined. If appropriate, aspects of human ethology will be discussed and compared to the behaviour of primates.	2	3
c.	**PS Tropical Zoology** This course conveys basics on living conditions, adaptations and variety in tropical habitats.	1	1.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the biology of selected animal groups with a focus on aspects of human pathogens and human ethology and assess the foundations for living conditions and interactions in tropical habitats.		
	Admission requirements: none		

22.	Elective module: Biology of Selected Animal Groups II	Sem. hours	ECTS credits
a.	**VU Fish Biology** The lecture is divided into a general introductory part on Fish Biology and a special part which will looks in detail at different subcategories, with a focus on the native fauna in Austria, complemented by a practical part.	3	4.5
b.	**VO Ecology, Biology, Diversity and Evolution of Vertebrates** In this lecture, native vertebrates will be presented and their living conditions and adaptation strategies to different habitats will be discussed.	2	3
	Total	**5**	**7.5**
	Learning objectives: Students are able to understand the distribution, presence and way of life of native vertebrates.		
	Admission requirements: none		

23.	Elective module: Alpine Zoology I	Sem. hours	ECTS credits
a.	**PS Terrestrial Zoology** Preparatory course for the EU	2	3
b.	**EU Animal Life in the High Mountains** In field trips and lectures, students will gain an overview of terrestrial high-Alpine animals from the timber line up to the nival zone. Major scientific interest will be put on the vertical zoning of the fauna and the succession process in glacier forelands.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to analyse and understand the biology, ecology and biodiversity of high-Alpine habitats and their fauna.		
	Admission requirements: none		

24.	Elective module: Alpine Zoology II	Sem. hours	ECTS credits
a.	**PS Aquatic Zoology** Preparatory course for the EU	2	3
b.	**EU High-Alpine Limnology** In excursions and lectures, students will gain an overview of aquatic habitats, their biological communities and their interactions. Particular focus will be put on current topics in research.	3	4.5
	Total	**5**	**7.5**
	Learning objectives: Students are able to analyse and understand the biology, ecology and biodiversity of high-Alpine waters and their biological communities.		
	Admission requirements: none		

25.	Elective module: Scientific Project Study – Zoology	Sem. hours	ECTS credits
	PJ Project Study: Zoology Collaboration in a current research project in the field of Zoology.	10	15
	Total	**10**	**15**
	Learning objectives: Students are able to apply modern methods in current research issues and analyse and evaluate data.		
	Admission requirements: none		

26.	Elective module: Theory of Science and Gender Research	Sem. hours	ECTS credits
a.	**VO Nature as a Political Issue** Concept of and reference to nature in the context of science, culture and society.	2	3
b.	**VO Theory of Science und Ethics – Lecture** Introduction to Science Theory and its relation to other scientific disciplines, Science Theory in Biology (particularly Evolution Biology) as well as basics in Scientific and Environmental Ethics under consideration of gender aspects.	2	3
c.	**SE Theory of Science und Ethics – Seminar** In-depth discussion of selected problems treated in the lecture “Theory of Science und Ethics”.	1	1.5
	Total	**5**	**7.5**
	Learning objectives: Under consideration of gender aspects, students will acquire a basic knowledge of the Science Theory in Biology, its relation to other scientific disciplines and its historical development, as well as a basic instrument of terms and concepts related to ethics, which will enable them to autonomously reflect on ethical questions related to science and the application of their knowledge in Biology.		
	Admission requirements: none		

27./28.	Elective module: Modules from other Master's Programmes of the Faculty of Biology	Sem. hours	ECTS credits
	A maximum of two modules (7.5 ECTS credits each) from the Master's Programmes in "Botany", "Microbiology", "Molecular Cell and Developmental Biology" and "Ecology and Biodiversity" at the University of Innsbruck can be selected.		7.5/7.5
	Total		**7.5/7.5**
	Learning objectives: Students will acquire an insight into other areas of Biology according to the learning objectives defined for the respective module.		
	Admission requirements: Students must meet the admission requirements defined in the respective curricula.		

§ 8 Master's Thesis

Students of the Master's Degree Programme in Zoology have to write a Master's Thesis equalling 27.5 ECTS credits. The Master's Thesis is a scientific piece of work which serves to prove the student's ability to autonomously cope with scientific questions using adequate scientific methods. Possible topics include all questions related to modern research in Zoology.

§ 9 Examination regulations

(1) A module is completed when the student has passed all the required courses.

(2) For lectures, the lecturer is required to communicate evaluation methods and criteria (oral and/or written) before the course starts.

(3) The evaluation of courses with continuous performance assessment (VU, UE, PS, SE, PJ) is based on the student's regular, written and/or oral and/or practical contributions. The lecturer is required to communicate evaluation methods and criteria before the course starts.

(4) The evaluation of the student's final thesis defence (Defensio) is based on an oral exam before an examination board which is made up of three examiners including the Master's Thesis supervisor.

§ 10 Academic degree

Graduates of the Master's Programme in Zoology are awarded the academic degree of "Master of Science", or "MSc", in brief.

§ 11 Implementation

This curriculum comes into force on 1 October 2010.

§ 12 Transitional provisions

(1) Regular students who enrolled in the "Magister" Programme in Zoology (Curriculum of 7 July, 2003) at the University of Innsbruck before 1 October 2008 shall be entitled to complete their studies within a period of six semesters following the implementation of this curriculum.

(2) Unless the student completes the "Magister" Programme in Zoology (Curriculum of 7 July, 2003) within this period, he/she shall be subjected to the Curriculum for the Master's Degree Programme in Zoology. Students shall be entitled to choose to be subjected to the Curriculum for the Master's Degree Programme in Zoology at any time.

For the Curriculum Committee: For the Senate:

Ao.Univ.Prof. Mag. Dr. Paul Illmer Univ.Prof. Dr. Ivo Hajnal