Note:
The following curriculum is a consolidated version. It is legally non-binding and for informational purposes only.
The legally binding versions are found in the University of Innsbruck Bulletins (in German).

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Curriculum for the Joint Study Programme **Master's Programme in Environmental Management of Mountain Areas (EMMA)** at the Faculty of Biology at the University of Innsbruck

§ 1 Description of the joint study programme

(1) The Master's Programme is based on the cooperation agreement between the Free University of Bozen-Bolzano (hereafter FUB) and the University of Innsbruck (hereafter UIBK).

(2) The admission procedure takes place according to the cooperation agreement.

(3) In the first year, courses with a total of 60 ECTS-Credits are to be taken by all students at the FUB. In the second year, a total of 30 ECTS-Credits must be taken at the UIBK. Students have the choice to complete the Master's Thesis at one of the two universities. Graduates are awarded the academic degree if they perform the required credits with a total of 120 ECTS-Credits, thereof at least 30 ECTS-Credits at the UIBK.

(4) According to §54 par. 1 Universities Act 2002, the Master's Programme in Environmental Management of Mountain Areas is allocated to the natural science study programmes.

(5) The master's programme imparts a synthesis of scientific and technical knowledge and skills. The training is interdisciplinary and includes the fields of alpine ecology, landscape ecology and planning, agriculture and forestry, water and waste management, geomatics and environmental and resource management. The offer is completed by selected aspects of the social sciences, law and economics.

§ 2 Qualification profile

(1) The graduates of the Master's Programme in Environmental Management of Mountain Areas have detailed knowledge of biotic and abiotic factors that influence natural and anthropogenic ecosystems; knowledge in the application of information technologies for landscape analysis and planning; scientific training in ecology, ecological restoration and planning and design in mountain areas; knowledge of techniques for analysing and monitoring forest, agricultural and mountain ecosystems; basic knowledge of how to implement sustainable management and protection of resources in mountain areas in line with the UN Sustainable Development Goals.

(2) Due to the interdisciplinary orientation, graduates have access to a wide range of activities and professions in accordance with their chosen specialisation. Selected fields of activity include: analysis and monitoring of mountain ecosystems; sustainable management; eco-certification and protection of environmental resources in the fields of agriculture and forestry in mountain areas; planning, management and acceptance of forestry interventions, of reforestation and silviculture; planning, projecting and management of measures to restore damaged ecosystems and land use systems; analysis and environmental impact assessment in mountain regions; analysis and assessment of natural hazards of hydrogeological origin in mountain regions; management and

planning of forest management and protected areas; elaboration of development plans for agricultural mountain regions; organisation and accompaniment of stakeholder processes; monitoring and implementation of legal environmental and nature conservation requirements.

(3) The acquired competences enable the graduates to work in: consultancy and planning offices for civil engineers; local, national, and international bodies or institutions; research institutions and universities; organisations of international cooperation and non-governmental organisations (NGOs).

(4) The master's programme also serves as scientific preparation for a relevant doctoral programme.

§ 3 Scope and duration

The master's programme covers a total of 120 ECTS-Credits. This equals a duration of 4 semesters. One ECTS-Credit equals a workload of 25 hours.

§ 4 Admission and selection procedure

(1) The admission to the study programme is granted by the Rectorate. The admission and selection procedure will be published by the Rectorate.

(2) According to the cooperation agreement a maximum of 35 students will be admitted per academic year.

§ 5 Language of instruction

The compulsory modules are taught in English, elective modules are taught in German, English or Italian.

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

(1) Courses without continuous assessment:

Lectures (VO) are courses held in lecture format. They introduce the research areas, methods and schools of thought for a given subject.

(2) Courses with continuous assessment:

1. Practical courses (UE) focus on the practical treatment of concrete scientific tasks within an area. Maximum number of students per course: 8 – 15.
2. Lectures with practical elements (VU) focus on the practical treatment of concrete scientific tasks that are discussed during the lecture parts of the course. Maximum number of students per course: 8 – 20.
3. Introductory seminars (PS) introduce students interactively to scientific literature through the treatment of selected issues. They convey knowledge and methods of academic work. Maximum number of participants: 15 – 20.
4. Seminars (SE) provide in-depth treatment of scientific topics through students' presentations and discussion thereof. Maximum number of participants: 15 – 20.
5. Project studies (PJ) promote scientific collaboration of two or more fields through the treatment of multidisciplinary topics and the use of various methods and techniques. Maximum number of students per course: 10 – 15.
6. Excursions with practical elements (EU), conducted outside the premises of the university, serve to demonstrate and deepen course contents through practical experience with concrete scientific tasks. Maximum number of students per course: 20.

§ 7 Allocation 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. Students for whom the study duration would be extended due to the postponement are to be given priority.
2. If the criteria in no. 1 do not suffice, the available places are drawn by random.

§ 8 Compulsory and elective modules

(1) The first year of study, covering 60 ECTS-Credits, is to be completed in accordance with the study regulations and study plan of the International Master's Programme in Environmental Management of Mountain Areas at the Faculty of Natural Sciences at the FUB.

(2) In the second year of study, the following compulsory modules covering 7.5 ECTS-Credits is to be passed at the UIBK:

Compulsory Module 1: Current Aspects in Environmental Management **7.5 ECTS-Credits**

(3) If the Master's Thesis is written at the UIBK, the following compulsory module covering 2 ECTS-Credits is to be passed:

Compulsory Module 2: Master's Thesis Defence **2 ECTS-Credits**

(4) In addition, elective modules covering 22.5 ECTS-Credits from the list below must be passed at the UIBK:

Elective Module 1: Fundamentals of Sanitary Engineering and Waste Management **5 ECTS-Credits**
Elective Module 2: Water and Sediment Management **5 ECTS-Credits**
Elective Module 3: Natural Hazard Management **5 ECTS-Credits**
Elective Module 4: Advanced Landscape Ecology **5 ECTS-Credits**
Elective Module 5: Ecology of Global Change **7.5 ECTS-Credits**
Elective Module 6: Biodiversity **7.5 ECTS-Credits**
Elective Module 7: Environment – Economy – Society **5 ECTS-Credits**
Elective Module 8: Interdisciplinary Excursion **5 ECTS-Credits**
Elective Module 9: Sustainable Resource Management **7.5 ECTS-Credits**
Elective Module 10: Nature and Water Protection in Practice **5 ECTS-Credits**
Elective Module 11: Use and Protection of Mountain Ecosystems **5 ECTS-Credits**
Elective Module 12: Scientific Practice: Data Analysis **5 ECTS-Credits**
Elective Module 13: Selected Chapters in Environmental Management: **5 ECTS-Credits**
Elective Module 14: Interdisciplinary Skills **5 ECTS-Credits**

§ 9 Compulsory and elective modules

(1) **Compulsory modules**

1.	**Compulsory Module: Current Aspects in Environmental Management**	**h**	**ECTS-Credits**
a.	**PS Selected Topics in Environmental Management**	1	1.5
b.	**PJ Project Study Environmental Management**	3	6
	Total	**4**	**7.5**
	Learning Outcomes: Students are able to use scientific methods and techniques to identify relevant issues for environmental management and also to work on these issues in an interdisciplinary manner.		
	Prerequisites: none		

2.	Compulsory Module: Master's Thesis Defence	h	ECTS-Credits
	Oral defence of the Master's Thesis before an examination board.	-	2
	Total	**-**	**2**
	Learning Outcomes: Reflection on the Master's Thesis in the overall context of the Master's Programme in Environmental Management of Mountain Areas. Theoretical understanding, methodical fundamentals, imparting of results of the Master's Thesis and presentation skills are focused on in this context.		
	Prerequisites: successful completion of all other compulsory modules and the required elective modules as well as the Master's Thesis		

(2) **Elective Modules:**

1.	Elective Module: Fundamentals of Sanitary Engineering and Waste Management	h	ECTS-Credits
a.	**VU Fundamentals of Sanitary Engineering and Waste Management**	2	3
b.	**UE Fundamentals of Sanitary Engineering and Waste Management**	**1**	**2**
	Total	**3**	**5**
	Learning Outcomes: Students are able to present and classify ecological concepts and techniques of urban waste management.		
	Prerequisites: none		

2.	Elective Module: Water and Sediment Management	h	ECTS-Credits
a.	**VU Water and Sediment Management in Mountain Regions**	2	3
b.	**UE Water and Sediment Management in Mountain Regions**	1	2
	Total	**3**	**5**
	Learning Outcomes: Students can explain the dynamics of water and sediment transport in mountain regions and are able to evaluate them.		
	Prerequisites: none		

3.	Elective Module: Natural Hazard Management	h	ECTS-Credits
a.	**VO Natural Hazard Management**	1	1.5
b.	**EU Recording and Management of Natural Hazards**	2	3.5
	Total	**3**	**5**
	Learning Outcomes: Students are able to recognise and classify alpine natural hazards and know measures to protect the alpine habitat.		
	Prerequisites: none		

4.	Elective Module: Advanced Landscape Ecology	h	ECTS-Credits
a.	**PJ Analysis of Landscape Patterns and Geostatistics**	2	4
b.	**SE Advanced Landscape Ecology**	1	1
	Total	**3**	**5**
	Learning Outcomes: Students are able to identify, present and assess relevant issues in landscape ecology. The students are able to work on these questions with scientific methods and techniques, also interdisciplinary.		
	Prerequisites: none		

5.	Elective Module: Ecology of Global Change	h	ECTS-Credits
a.	**VO Ecology of Global Change**	3	4.5
b.	**PS Ecology of Global Change**	2	3
	Total	**5**	**7.5**
	Learning Outcomes: Students are able to network, evaluate and communicate background information and current findings on global changes and their interactions with ecological processes.		
	Prerequisites: none		

6.	Elective Module: Biodiversity	h	ECTS-Credits
a.	**VO Biodiversity**	3	4.5
b.	**UE Biodiversity**	2	3
	Total	**5**	**7.5**
	Learning Outcomes: Students know local, regional, and global patterns of biodiversity in terrestrial and aquatic habitats, their causes and significance and the influences of global change and can apply this knowledge practically.		
	Prerequisites: none		

7.	Elective Module: Environment – Economy - Society	h	ECTS-Credits
	PJ Interdisciplinary System Analysis	4	5
	Total	**4**	**5**
	Learning Outcomes: The students know important socio-ecological concepts and can apply them to environmental and socially relevant issues.		
	Prerequisites: none		

8.	Elective Module: Interdisciplinary Excursion	h	ECTS-Credits
	EU Interdisciplinary Excursion Interdisciplinary excursion to a habitat or relating to a question.	4	5
	Total	**4**	**5**
	Learning Outcomes: The students are able to recognise the multi- and transdisciplinary interactions between a living space and its social and political environment on the basis of a specific question, to abstract general connections and to transfer them to new situations.		
	Prerequisites: none		

9.	Elective Module: Sustainable Resource Management	h	ECTS-Credits
a.	**VU Sustainable Resource Management**	3	5
b.	**UE Sustainable Resource Management**	2	2.5
	Total	**5**	**7.5**
	Learning Outcomes: Students understand the impact of natural resource use on the environment and can apply this knowledge in practice.		
	Prerequisites: none		

10.	Elective Module: Nature and Water Protection in Practice	h	ECTS-Credits
a.	**PJ Project Design and Implementation**	2	2
b.	**EU Environmental Planning**	3	3
	Total	**5**	**5**
	Learning Outcomes: Students understand processes of nature and water protection and the application of EU-conservation guidelines and are able to put their knowledge in a concrete project into practice (from the idea to the implementation and the measurement of results).		
	Prerequisites: none		

11.	Elective Module: Use and Protection of Mountain Ecosystems	h	ECTS-Credits
a.	**VO Use and Protection of Alpine Habitats and Species**	2	3
b.	**PS Use and Protection of Alpine Habitats**	2	2
	Total	**4**	**5**
	Learning Outcomes: Students know the basics of nature and water protection in the Alps as well as the regional, national, and international framework conditions, relevant laws and guidelines and their practical implementation.		
	Prerequisites: none		

12.	Elective Module: Scientific Practice: Data Analysis	h	ECTS-Credits
a.	**VU Data Analysis**	1	2
b.	**UE Data Analysis**	2	3
	Total	**3**	**5**
	Learning Outcomes: Students can practically apply advanced statistical evaluation methods such as multiple regression analyses, diversity analyses and various ordination methods and interpret their results.		
	Prerequisites: none		

13.	Elective Module: Selected Chapters in Environmental Management	h	ECTS-Credits
a.	**VU Selected Chapters in Environmental Management:**	2	2.5
b.	**VU Selected Chapters in Environmental Management II:**	2	2.5
	Total	**4**	**5**
	Learning Outcomes: Students gain insights into sub-disciplines relevant to the environmental management of mountain regions and can apply them practically.		
	Prerequisites: none		

14.	Elective Module: Interdisciplinary Skills	h	ECTS-Credits
	Providing the availability of places, courses covering 5 ECTS-Credits may be freely selected from the Master's and/or Diploma Programmes offered at the University of Innsbruck. It is recommended to select courses related to the ethics of science and environment as well as courses dealing with gender aspects.		5
	Total		**5**
	Learning Outcomes: This module serves the expansion of the study programme and the acquisition of additional qualifications.		
	Prerequisites: The prerequisites specified in the respective curricula must be met.		

§ 10 Master's Thesis

(1) A Master's Thesis amounting to 28 ECTS-Credits has to be written. 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.

(2) The topic of the Master's Thesis must be related to the field of environment management in mountain areas.

(3) The student may suggest the topic of the master's thesis or to choose from a number of topics offered.

(4) The Master's Thesis is supervised by one supervisor at the UIBK and one supervisor at the FUB.

§ 11 Examination regulations

(1) With the exception of the defence of the Master's Thesis module, modules are successfully completed through positive participation in the relevant courses.

Course examinations are:

a. Examinations that assess the knowledge and skills covered in an individual course in which course assessment is based on a single examination at the end of the course. The course instructor has to define the method of examination (written and/or oral) before the start of the course.

b. Courses with continuous assessment, for which course assessment is based on regular written and/or oral contributions by participants. The course instructor has to define the assessment criteria before the start of the course.

(2) The performance of the compulsory module Master Thesis Defence is assessed by an oral examination held before an examination board which is composed of the Master's Thesis' supervisors and one examiner.

(3) For courses at the universities, the respective national statutory provisions become applicable.

§ 12 Academic degree

(1) Students successfully completing the Master's Programme are to be awarded the title of "Master of Science", shortened to "MSc" at the University of Innsbruck.

(2) The academic degree is to be confirmed by a joint certificate of the Free University of Bozen-Bolzano and the University of Innsbruck.

§ 13 Coming into force

(1) The curriculum comes into force on 1 October 2014, subject to the accreditation of the study programme at the FUB by the Accreditation Council in Rome.

(2) The changes to the curriculum in the version of the University of Innsbruck Bulletin from 11 June 2021, Issue 76, No. 850 come into effect on 1 October 2021 and are to be applied to all students.