

Note:

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Curriculum for the
Master's Programme Geography: Global Change - Regional Sustainability
at the Faculty of Geo- and Atmospheric Sciences of the University of Innsbruck

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§ 1 Allocation

According to § 54, Para 1 Universities Act 2002, the Master's Programme Geography: Global Change - Regional Sustainability is grouped among the studies in the natural sciences.

§ 2 Qualification Profile

- (1) Based on a relevant bachelor's programme, the Master's Programme Geography: Global Change - Regional Sustainability lays the foundation for scientific and practical activities in this field. It promotes analytical and integrative competences in general as well as network thinking at the interfaces between society and environment in particular.
- (2) The study programme offers in-depth content-wise knowledge in spatial and regional development, development research, mountain research and natural hazard research as well as in-depth methodical knowledge in social scientific methods, geoinformatics, remote sensing and field and laboratory methods.
- (3) Students are able to work scientifically target- and result-oriented, plan and implement field work and organize and manage projects.
- (4) The solid geographical training with numerous interactions within and outside the subject impart necessary subject-specific and methodical competences in order to elaborate responsible solution strategies in addressing complex issues, with special attention to teamwork skills.
- (5) The career fields for graduates range from experts and managers in the academic sector, public sector, engineering and planning offices, NGOs as well as in relevant fields of the economy. The master's programme prepares students for relevant doctoral studies.

§ 3 Scope and Duration

The Master's Programme Geography: Global Change - Regional Sustainability covers 120 ECTS-Credits, with a duration of four semesters. One ECTS-Credit is equivalent to a work-load of 25 hours.

§ 4 Admission

- (1) Admission to the Master's Programme Geography: Global Change - Regional Sustainability is granted for persons with a thematically relevant bachelor's programme or a relevant bachelor's programme at a University of Applied Sciences or other equivalent studies completed at an acknowledged Austrian or non-Austrian post-secondary educational institution.
- (2) In any case, the Bachelor's Programme Geography at the University of Innsbruck counts as relevant study programme. Based on the regulations for admission to master programs as defined by the University Act, the Rector's office decides whether other thematically relevant studies completed at an acknowledged Austrian or non-Austrian postsecondary educational institution can be accepted or considered equivalent.
- (3) If equivalence is given and only minor requirements are missing for full equivalency, the Rector's office may require applicants to take additional exams during the Master's Programme to have their degrees acknowledged as equivalent to the requirements stated above.

§ 5 Types of courses and numbers of participants

- (1) Courses without continuing performance assessment:

Lectures (VO) are courses held in lecture format. They introduce the research areas, methods and schools of thought for a given subject. Maximum number of participants: 200

(2) Courses with continuing performance assessment:

1. Practical courses (UE) focus on the practical treatment of concrete scientific tasks within an area. Maximum number of participants: 20
2. Seminars (SE) provide in-depth treatment of scientific topics through students' presentations and discussion thereof. Maximum number of participants: 20
3. Lectures with integrated practical parts (VU) focus on the practical treatment of concrete scientific tasks that are discussed during the lecture parts of the course. Maximum number of participants: 20
4. 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 participants: 20 (in difficult terrain: 12)

§ 6 Allocation of places in courses with a limited number of participants

In courses with a limited number of participants, course places are allocated as follows:

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, first, students for whom this course is part of a compulsory module are to be given priority, and second, students for whom this course is part of an elective module.
3. If the criteria in No 1 and 2 do not suffice, the available places are drawn by random.

§ 7 Compulsory and Elective Modules

(1) The following compulsory modules with a total of 42.5 ECTS- Credits are to be taken:

1.	Compulsory Module: Global Change - Regional Sustainability	h	ECTS-Credits
a.	VO Basics of Man-Environment-Relationships in Global Change and Risk Research In this lecture the fundamentals of theoretical approaches of the relationship of men with environment are taught with selected examples of their practical implementation in global change and risk research.	2	3.5
b.	VO Key Questions of Sustainability In the course the theoretical basics and interdisciplinary references of the concept / vision of sustainability are presented, critically questioned and discussed in practical case examples from different spatial contexts implementation opportunities and obstacles.	1	1.5
	Total	3	5
	Objective: Students know fundamental theoretical, methodical and application-oriented concepts of man-environment-relationships as well as basic concepts of sustainability, and they are able to apply them.		
	Prerequisites: none		

2.	Compulsory Module: Selected Topics of Man-Environment Relationships	h	ECTS-Credits
	SE Aspects of Man-Environment-Relationships Special aspects of global change and risk in the man-environment-relationships will be discussed (written and oral) intensely and are presented and evaluated.	2	5
	Total	2	5
	Objective: Students know selected concepts of man-environment-relationships and are able to apply these questions in terms sustainable developments.		
	Prerequisites: none		

3.	Compulsory Module: Theory and Strategies of Spatial Development	h	ECTS-Credits
a.	VO Theories and Policies The course presents and discusses the most important theories and strategies of spatial development.	2	3.5
b.	VO Planning and Legal Basics The course imparts legal basics of regional development as well as communal, regional and federal state planning on national and European level.	1	1.5
	Total	3	5
	Objective: Students are able to analyse and evaluate the chances and risks of global change for spatial and regional development. They understand theoretical fundamentals and are able to apply their results critically and derive strategies of regional development in specific regions.		
	Prerequisites: none		

4.	Compulsory Module: Natural Processes in Mountain Areas	h	ECTS-Credits
a.	VO Natural Processes in Mountain Regions 1 Within the lecture present and past processes in the mountain ecosystems are presented.	2	3.5
b.	VO Natural Processes in Mountain Regions 2 The course treats interconnected exemplary topics such as alpine climatology, natural hazards, glacier and water balance, permafrost, alpine soils and vegetation.	1	1.5
	Total	3	5
	Objective: Students are able to describe and explain climate- and land-use-driven phenomena and processes in mountain regions.		
	Prerequisites: none		

5.	Compulsory Module: Techniques for Geography	h	ECTS-Credits
	According to the courses offered, the following Techniques of Geography can be completed several times, however, on different special topics. Courses with a total of 20 ECTS-Credits are to be taken. VU Social Science Methods: The course presents, discusses and practices social science methods, their application and the evaluation of results at an advanced level. VU Geoinformatics: The course presents, discusses and practices methods of geoinformatics, their application and the evaluation of results at an advanced level. VU Remote Sensing: The course presents, discusses and practices methods of remote sensing, their application and the evaluation of results at an advanced level. VU Field and Laboratory Methods: The course presents, discusses and practices field and laboratory methods, their application and the evaluation of results at an advanced level.	3 3 3 3	5 5 5 5
	Total	12	20
	Objective: Students have wide theoretical and practical knowledge of geographical work methods, and they are able to apply them in terms of different issues.		
	Prerequisites: none		

6.	Compulsory Module: Master's Thesis Defense	h	ECTS-Credits
	Final oral defense of the master's thesis before an examination board		2.5
	Total		2.5
	Objective: Reflection of the master's thesis in the general context of the master's programme. In this context, theoretical understanding, methodical fundamentals, presentation of results of the master's thesis and presentation skills are the main focus.		
	Prerequisites: successful completion of all other compulsory and elective modules as well as the master's thesis		

- (2) Elective modules with a total of 50 ECTS-Credits are to be taken, whereas two of the following in-depth studies (40 ECTS-Credits) and 10 ECTS-Credits from the modules 9–12 are to be taken:

A. In-Depth Study Spatial Development and Regional Studies

1.	Elective Module: Introduction to Spatial Development and Regional Studies	h	ECTS-Credits
a.	VU Space and Region in the Context of Global Change Based on current theoretical approaches, the course deals with the effects of global change on local and regional level in terms of different content-wise contexts and discusses corresponding local and regional-specific answers. The practical part treats case examples.	3	5

b.	SE Current Topics of Spatial Development Influenced by Globalisation The course written and orally presents and critically discusses the latest findings of globalisation, spatial and regional research. Based on this course, investigation instruments are elaborated for the project study.	2	5
	Total	5	10
	Objective: Students understand spatial structures and dynamics in the tension field between globalisation and regionalisation, to critically question current theoretical and conceptual discussion and to evaluate local-regional strategies. Students are familiar with literature of spatial development and regional studies and are able to critically question it and classify it to the current research dialogue.		
	Prerequisites: none		

2.	Elective Module: Field Trip: Spatial Development and Regional Studies; Evaluation and Presentation of Research Results	h	ECTS-Credits
a.	EU Spatial Development and Regional Studies Based on theoretical recognitions in an investigation area, local-regional structures and processes to selected topics (e.g. tourism, city) are elaborated, empirically investigated in terms of its interaction with influences of global change and action perspectives are elaborated.	4	5
b.	UE Data Analysis, Development of Adjusted Solution Approaches, Reporting, Project Evaluation and Presentation The course imparts the fundamentals of data analysis and result development, introduces the techniques of reporting and project evaluation and elaborates different possibilities of result presentation (talk, publication, press release, press conference, video, etc.).	3	5
	Total	7	10
	Objective: Students are able to understand, describe and explain spatial processes of a specific area (town or region), and adequately apply spatial- and social-scientific methods. Students are able to impart scientific results in written and oral form and master necessary specifications. They can apply statistical, verbal and graphical analysis and interpretation methods, elaborate solution models and evaluate chances of implementation.		
	Prerequisites: successful completion of elective module 1		

B. In-Depth Study Development Engineering

3.	Elective Module: Introduction: The "Global South" between Globalisation and Sustainability	h	ECTS-Credits
a.	VU The Countries of the South in the Field of Tension between Globalisation and Sustainability The course elaborates the most important theories and strategies of development research as well as discusses questions of development policy and cooperation on different levels. Gender aspects are also taken into consideration.	3	5

b.	SE Regional Case Examples of Sustainable Development: Content and Methodical Preparation of the Project Study The course presents, orally and in writing, the most important theories and strategies of development research in terms of its relevance for regional case examples. These are discussed, critically questioned in the context of sustainable development and weighed with regard to their practical implementation chances and limitations. Based on this knowledge, the investigation instruments for the project study are elaborated.	2	5
	Total	5	10
	Objective: Students are able to understand theoretical fundamentals of development research, to critically apply their findings and to derive strategies of spatial development in the global south. Students are able to elaborate strategies of spatial development in specific regions and conceptually prepare a concrete empirical case study in a country of the south.		
	Prerequisites: none		

4.	Elective Module: Field Exercise: Processes of Regional Development	h	ECTS-Credits
a.	EU „Global South“ In this course theoretical skills are practically applied in a selected partial area of the global south. Gender aspects are also taken into consideration.	4	5
b.	UE Data Analysis, Development of Adjusted Solution Approaches, Reporting, Project Evaluation and Presentation The course imparts the fundamentals of data analysis and result development, introduces the techniques of reporting and project evaluation and elaborates different possibilities of result presentation (talk, publication, press release, press conference, video, etc.).	3	5
	Total	7	10
	Objective: Students are able to recognize, understand and explain the field of tension between global change and regional sustainability illustrated by concrete places in the „global south“ . They collaborate with decision-makers in the framework of governance strategies and acquire experience in empirical work. Students impart scientific results in written and oral form and master the necessary formal specifications. They are able to apply statistical, verbal and graphical analysis and interpretation methods, elaborate solution models and evaluate their implementation chances.		
	Prerequisites: successful completion of elective module 3		

C. In-Depth Study Mountain Research

5.	Elective Module: Introduction to Research on Mountain Regions	h	ECTS-Credits
a.	VU Introduction to Research on Mountain Regions The course discusses the strong spatial differentiation and high specialization of man-environment-systems in mountain regions and includes reconstructions of former states and current changes as well as future scenarios.	3	5

b.	SE Recent Literature on Mountain Research The course discusses recent methodical developments in the field of mountain research and presented, critically questioned and discusses with concrete application examples from the relevant literature.	2	5
	Total	5	10
	Objective: Students know the basics of modern man-environment-related mountain research. Moreover, they are able to understand and critically reflect theoretical fundamentals of mountain research as well as to apply theories and methods for individual research work.		
	Prerequisites: none		

6.	Elective Module: Field Trip: Mountain Research; Evaluation and Presentation of Research Results	h	ECTS-Credits
a.	EU Mountain Research The course imparts fundamentals to recognize, record, model and analyse processes in the mountain region.	4	5
b.	UE Data Analysis, Development of Adjusted Solution Approaches, Reporting, Project Evaluation and Presentation The course imparts the fundamentals of data analysis and result development, introduces the techniques of reporting and project evaluation and elaborates different possibilities of result presentation (talk, publication, press release, press conference, video, etc.).	3	5
	Total	7	10
	Objective: Students are able to recognize and interpret processes and its consequences in the mountain region. Moreover, they get to know the use of process-specific monitoring, measuring and analysis methods. Another objective of the module is to impart techniques of data preparation and analysis as well as the modelling of processes. Students are able to critically question modelling and analysis results and to communicate in written and oral form.		
	Prerequisites: successful completion of elective module 5		

D. In Depth-Study Natural Hazards

7.	Elective Module: Introduction to Natural Hazards	h	ECTS-Credits
a.	VU Natural Hazards I: Theoretical Fundamentals The course imparts basic interrelations between processes of natural hazards and the society. In this context, the role of the society as addressee on the one hand, and as originator of natural hazards on the other hand is examined.	3	5
b.	SE Natural Hazards Research II The course discusses recent methodical development in the field of natural hazards research and presented, critically reflected and discussed with concrete application examples.	2	5
	Total	5	10

	Objective: Students know the fundamentals of modern risk-based nature hazards research and they are able to critically reflect new developments in this field.
	Prerequisites: none

8.	Elective Module: Field Trip: Natural Hazards Research; Evaluation and Presentation of Research Results	h	ECTS-Credits
a.	EU Natural Hazards Research III: Data Collection Illustrated by a practical example project, this course practices empirical data collection in different phases of a risk management cycle (mapping, survey, archive evaluation, etc.).	4	5
b.	UE Natural Hazards Research IV: Integration and Valorisation of Analysis Results The data collected in EU Natural Hazards Research III are analysed (e.g. by statistical evaluations, modelling, content analyses). Then, the nature- and social-scientific analysis results are interlinked and discussed and critically reflected with stakeholders.	3	5
	Total	7	10
	Objective: Students are able to systematically collect and administer data in the context of modern risk-based nature hazards research. They are able to independently collect and critically reflect nature- and social-scientific results of natural hazards.		
	Prerequisites: successful completion of elective module 7		

E. Internship and Interdisciplinary Skills:

9.	Elective Module: Internship I	h	ECTS-Credits
	In order to evaluate and apply their knowledge and skills and to gain professional experience, students have to complete a practical internship of 120 hours or 5 ECTS-Credits. The internship can be completed in the lecture-free time in institutions where experts according to § 2 (spatial development and regional research, development research, mountain research and natural hazards research) work. Approval from the Director of Studies is required before beginning the internship. Following completion of the internship, students are to submit certification by the participating facility of the length, scope and content of the internship; students are also to write and submit a report on their internship experience. The elective modules 9 and 10 can also be completed in the same institution (with a total of 10 ECTS-Credits or 240 hours).		5
	Total		5
	Objective: Students apply knowledge and skills from the master's programme in a professional context; after completion of this module, students are familiar with the conditions of professional and/or scientific practice.		

Prerequisites: none

10.	Elective Module: Internship II	h	ECTS-Credits
	<p>In order to evaluate and apply their knowledge and skills and to gain professional experience, students have to complete a practical internship of 120 hours or 5 ECTS-Credits.</p> <p>The internship can be completed in the lecture-free time in institutions where experts according to § 2 (spatial development and regional research, development research, mountain research and natural hazards research) work.</p> <p>Approval from the Director of Studies is required before beginning the internship. Following completion of the internship, students are to submit certification by the participating facility of the length, scope and content of the internship; students are also to write and submit a report on their internship experience.</p> <p>The elective modules 9 and 10 can also be completed in the same institution (with a total of 10 ECTS-Credits or 240 hours).</p>		5
	Total		5
	<p>Objective: Students apply knowledge and skills from the master's programme in a professional context; after completion of this module, students are familiar with the conditions of professional and/or scientific practice.</p>		
	Prerequisites: none		

11.	Elective module: Interdisciplinary Skills I	h	ECTS-Credits
	Courses with a maximum number of 5 ECTS-Credits can be chosen freely from all curricula of master's and/or diploma programs offered at the University of Innsbruck.	-	5
	Total	-	5
	<p>Objective: This module serves to widen the study programme and to acquire additional qualifications.</p>		
	Prerequisites: the prerequisites of the respective curricula do apply.		

12.	Elective Module: Interdisciplinary Skills II	h	ECTS-Credits
	Courses with a maximum number of 5 ECTS-Credits can be chosen freely from all curricula of master's and/or diploma programs offered at the University of Innsbruck.	-	5
	Total	-	5
	<p>Objective: This module serves to widen the study programme and to acquire additional qualifications.</p>		
	Prerequisites: the prerequisites of the respective curricula do apply.		

§ 8 Master's Thesis

- (1) A master's thesis with a workload of 27.5 ECTS-Credits is to be completed. The master thesis is a scientific piece of work which proves that students are able to apply the theoretical and methodical instruments of the subject area to a particular research question and to reflect on them independently.
- (2) The topic of the master's thesis is to be chosen from an in-depth study (elective module 1–8) or a field of methods (compulsory module 5). Students have the right to propose the topic of the master thesis or to choose it from a number of proposals.
- (3) Students have the right to complete the master's thesis in a foreign language if the supervisor agrees.
- (4) It is permissible for several students to work jointly on one single master's thesis topic, on the condition that each individual student's contribution is identified distinctly and can be assessed separately.

§ 9 Examination Regulations

- (1) The performance of the modules is assessed by module examinations. Module examinations serve to proof the knowledge and skills covered in one module. With positive assessment of all parts of a module examination, a module is successfully completed.
- (2) The performance of the courses of a module is assessed by course examinations. Course examinations are
 1. examinations which serve to proof the knowledge and skills covered in one course in which course assessment is based on a single examination at the end of the course. The examination is in written form. The course instructor has to define the assessment criteria before the course begins.
 2. examinations of courses with continuing performance assessment in which course assessment is based on regular written and/or oral contributions of the participants. The course instructor has to define the method of examination (written and/or oral) and the assessment criteria before the course begins.
- (3) The performance of the module „Master's Thesis Defense“ is assessed by an oral board examination held by an examination board with three examiners.
- (4) The performance of the elective module 9 and 10 is assessed by the Director of Studies. Positive completion is to be defined by “mit Erfolg teilgenommen” (successfully completed), negative completion is to be defined by “ohne Erfolg teilgenommen” (not successfully completed).

§ 10 Academic Degree

Graduates of the Master's Programme Geography: Global Change - Regional Sustainability are awarded the academic degree „Master of Science“, abbreviated „MSc“.

§ 11 Coming into force

The curriculum is effective as of 1 October 2015.

§ 12 Transitional Provisions

- (1) This curriculum applies to all students starting the study programme from the winter semester 2015/16.
- (2) Regular students who have commenced the Master's Programme Geography: Global Change - Regional Sustainability according to the curriculum 2007 (published in the University of Innsbruck Bulletin in the version of 27 April 2007, Issue 46, No 212) before 1 October 2015 are entitled from this point in time onwards to complete the this programme within a maximum of six semesters.
- (3) If the Master's Programme Geography: Global Change - Regional Sustainability according to the curriculum 2007 is not completed within the specified time according to Para 2 then the curriculum of the Master's Programme Geography: Global Change - Regional Sustainability published in the University of Innsbruck Bulletin in the version of 03 June 2015, Issue 62, No 459 (hereafter: curriculum 2015) will apply. Moreover, students are entitled to change to the Master's Programme Geography: Global Change - Regional Sustainability according to curriculum 2015 at any time on a voluntary basis.
- (4) The recognition of exams is set out in appendix of this curriculum.

For the Curriculum Committee:
Univ.-Prof. Dr. Christoph Spötl

For the Senate:
Univ.-Prof. Dr. Ivo Hajnal

Appendix: Recognition of Exams

- (1) Positively assessed exams, taken as part of the Master's Programme Geography: Global Change - Regional Sustainability at the University of Innsbruck according to the curriculum 2007 (published in the version of the University of Innsbruck Bulletin from 27 April 2007, Issue 46, No 212) will be recognised according to § 78 Para 1 Universities Act 2002 as equal towards the Master's Programme Geography: Global Change - Regional Sustainability according to the curriculum 2015 (published in the version of the University of Innsbruck Bulletin from 03 June 2015, Issue 62, No 459) as follows:

Positively assessed exams	ECTS-Credits	Recognition as	ECTS-Credits
Basics of the Human-Environment Relationship in the Global Change and Risk Research VO2 (from module 1)	3.5	Basics of Man-Environment-Relationships in Global Change and Risk Research VO2 (from module 1)	3
Fundamentals Question on Sustainability VO2 (from module 6)	3.5	Key Questions of Sustainability VO1 (from module 1)	2
Aspects of the Human Environment Relationship SE2 (from module 1)	4.0	Aspects of Man-Environment-Relationships SE2 (module 2)	5
Theory and Strategy of Urban and Regional Development VO4	7.5	Theory and Strategies of Spatial Development VO3 (module 3)	5
Natural Processes in Mountain Regions VO4 (module 14)	7.5	Natural Processes in Mountain Regions VO3 (module 4)	5
Urban and Regional Development (modules 9, 10)	22.5	Spatial Development and Regional Studies (modules 6 and 7)	20
Development Research (modules 12, 13 and 11)	22.5	Development Studies (modules 8 and 9)	20
Climate and Cryosphere Science (modules 15, 16 und 17)	22.5	Mountain Research (module 10 and 11)	20
Natural Hazards Research (modules 18, 19 and 17)	22.5	Natural Hazards Research (modules 12 and 13)	20

- (2) Compulsory module (module 5)

From the modules 3, 4 and 5 of the Master's Programme Geography: Global Change - Regional Sustainability according to curriculum 2007, course examinations with a total of 20 ECTS-Credits can be recognized for the compulsory module 5 of the Master's Programme Geography: Global Change - Regional Sustainability according to curriculum 2015, if they are not recognized for the elective modules 11 and 12.

- (3) Elective modules (modules 11 and 12)

From the modules 2 to 5 of the Master's Programme Geography: Global Change - Regional Sustainability according to curriculum 2007, course examinations with a total of 10 ECTS-Credits can be recognized for the elective modules 11 and 12 of the Master's Programme Geography: Global Change - Regional Sustainability according to the curriculum 2015, if they are not recognized for the compulsory module 5.