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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Complete version from 1 October 2016

Curriculum for the **Bachelor's Programme Atmospheric Sciences** at the Faculty of Geo- and Atmospheric Sciences, University of Innsbruck

§ 1 Profile

(1) The Bachelor's Programme Atmospheric Sciences is grouped among the natural sciences.

(2) The Bachelor's Programme Atmospheric Sciences is the basis to pursue career activities in this field or for a related master's programme at the University of Innsbruck and other universities. The bachelor's programme conveys basic subject-specific expertise and skills and methods for the graduates' future career opportunities. The bachelor's programme offers comprehensive insight into the aspects and processes of atmosphere, hydrosphere, cryosphere and lithosphere, with special reference to practice-oriented relevance and application of the skills and knowledge acquired.

(3) The Bachelor's Programme Atmospheric Sciences is closely linked with other intra- and interfaculty study programmes. In combination with the two other bachelor's programmes at the Faculty of Geo- and Atmospheric Sciences, the Bachelor's Programme Earth Sciences and the Bachelor's Programme Geography, five common basic modules of geo- and atmospheric sciences are imparted. In combination with the bachelor's programmes at the Faculty of Mathematics, Computer Science and Physics, four common modules convey the fundamental mathematical principles to describe the processes of atmosphere, hydrosphere, cryosphere and lithosphere.

(4) Based on the contents of these common study programmes, students acquire a broad basic knowledge in meteorology, atmospheric physics, climate, climate change, glaciology and hydrology. Due to the location of the University of Innsbruck in the midst of the Alps, the reference to the mountain region is a major issue of the education. The programme fosters „atmospheric thinking": Complex scientific connections in terms of space and time are based on mathematical and physical principles, and the most important processes are to be identified, elaborated and comprehended. With the bachelor's thesis, students are able to independently elaborate, document and present selected issues in the field of atmospheric sciences.

(5) The curriculum also imparts generic interdisciplinary competences in teamwork, conflict resolution and problem-solving.

(6) The programme introduces students to skills in formulating and presenting problem statements and their results. Special focus is given to target- and result-oriented work, ethical and socially responsible approaches, effective communication and teamwork.

(7) The Bachelor's Programme Atmospheric Sciences prepares students for a relevant master's programme as well as careers beyond the academic area. Occupational fields of graduates are in private and public weather forecasting, relevant economic fields (environment, energy, traffic, finance and insurance, consulting, tourism), the environmental sector and specialized engineering and planning offices. Besides, graduates can also choose occupational fields without direct reference to the subject based on the acquired intellectual and IT skills, and the ability to scientific-analytical and interdisciplinary thinking.

§ 2 Scope and duration

The Bachelor's Programme Atmospheric Sciences covers 180 ECTS-Credits, with a duration of six semesters.

§ 3 Types of courses and maximum number of participants

(1) The **study orientation course (SL)** conveys an overview on the main contents of the study programme, and it forms the basis for the decision to pursue the chosen the study programme. Maximum number of participants: 200

(2) **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

(3) Courses with continuous assessment:

1. **Practical courses** (UE) focus on the practical treatment of concrete scientific tasks within an area. Maximum number of participants: 25
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 participants: 25
3. **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 (on difficult terrain: 12)
4. **Practical training courses** (PR) provide practical experience with concrete scientific tasks, complementing occupational and academic training. Maximum number of participants: 25
5. **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: 25
6. **Seminars** (SE) provide in-depth treatment of scientific topics through students' presentations and discussion thereof. Maximum number of participants: 15

§ 4 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 Z 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 Z 1 and 2 do not suffice, the available places are drawn by random.

§ 5 Compulsory and elective modules

(1) The following compulsory modules, amounting to 172.5 ECTS-Credits must be passed:

1.	**Compulsory Module: Mathematics 1**	**h**	**ECTS-Credits**
a.	**VO Introduction to Mathematics 1** Introduction to linear algebra and geometry; fundamentals of mathematics; systems of linear equations; elementary affine and Euclidean geometry; eigenvalue problems.	3	4.5
b.	**PS Introduction to Mathematics 1** Discussion, in-depth knowledge and practise of the optics covered in the lecture; scientific arguing and presentation of mathematical contents.	2	2.5
c.	**PR Introduction to Mathematics 1** Exercises to the contents of the lecture.	1	0.5
	Total	**6**	**7.5**
	Learning Outcomes: Students can understand the way of thinking and language of mathematics in the area of linear algebra and use them to help solve issues in this area.		
	Prerequisites: none		

2.	**Compulsory Module: Mathematics 2**	**h**	**ECTS-Credits**
a.	**VO Introduction to Mathematics 2** Introduction to analysis; the basic concepts of mathematics necessary for this introduction; real numbers; functions; calculus in one variable.	3	4.5
b.	**PS Introduction to Mathematics 2** Discussion, deepening and practicing the contents of the lecture; exercise in scientific reasoning and in presenting mathematical content.	2	2.5
c.	**PR Introduction to Mathematics 2** Exercises to the contents of the lecture.	1	0.5
	Total	**6**	**7.5**
	Learning Outcomes: Students are able to understand the way of thinking and language of mathematics in the area of analysis and can use them to solve problems in their area.		
	Prerequisites: none		

3.	Compulsory Module: Physics 1	h	ECTS-Credits
a.	**VO Physics 1: Mechanics and Thermodynamics** Measurement and units of measurement; mechanics of the mass point and of rigid bodies; deformable bodies and fluids; oscillation and waves; thermodynamics; basic elements of statistical mechanics	4	6
b.	**UE Physics 1: Mechanics and Thermodynamics for Atmospheric Science** Discussion, advanced study and practicing of the contents of the lecture; practicing of scientific argumentation and presentation of physical contents	1	1.5
	Total	**5**	**7.5**
	Learning Outcomes: Students are able to understand the way of thinking in physics in the fields of mechanics and thermodynamics and solve problems in these fields.		
	Prerequisites: none		

4.	Compulsory Module: Introduction to Atmospheric Sciences	h	ECTS-Credits
a.	**VO Introduction to Meteorology** The lecture provides an overview of the main topics in atmospheric science.	2	4
b.	**VO Introduction to Climatology** The lecture provides an overview of the main topics in climatology.	2	3.5
	Total	**4**	**7.5**
	Learning Outcomes: Students understand the ways of thinking in meteorology; they know the most important phenomena and processes and learn to interpret the weather and climatic events. Students get an overview of the most important contents of the study field of atmospheric sciences and its further development.		
	Prerequisites: none		

5.	Compulsory Module: Mathematics 3	h	ECTS-Credits
a.	**VO Analysis 2** Differential and integral calculus in several variables, including topological principles in Rn, curves and surfaces in R3 as well as integral theorems.	4	5.5
b.	**PS Analysis 2** Discussion, specialization and practice of the contents covered in the lecture; exercises of scientific arguing.	2	2
	Total	**6**	**7.5**
	Learning Outcomes: Students learn how to understand the methods of analysis in several variables and to apply them independently to problems.		
	Prerequisites: none		

6.	Compulsory Module: Physics 2	h	ECTS-Credits
a.	**VO Introduction to Physics 2** The lecture provides an overview of the main topics in electromagnetism and optics.	4	6.5
b.	**UE Introduction to Physics 2** Discussion, specialization and practice of the contents covered in the lecture; exercises of scientific arguing and presentation of physical contents.	1	1
	Total	**5**	**7.5**
	Learning Outcomes: Students learn the ways of thinking of physics in the area of electromagnetism and of optics in order to be able to understand and independently solve problems in this area.		
	Prerequisites: none		

7.	Compulsory Module: Introduction to Chemistry and Geophysics	h	ECTS-Credits
a.	**VO General and Inorganic Chemistry** The lecture conveys the principles of general chemistry (e.g. chemical reactions) and special inorganic chemistry focusing on earth- and environment-relevant compounds.	2	3.5
b.	**UE General and Inorganic Chemistry** Specialization of the fundamentals of general chemistry (e.g. chemical reactions) covered in the lecture as well as special inorganic chemistry focusing on earth- and environment-relevant compounds.	1	1.5
c.	**VO Geophysics** The lecture conveys the principles of geophysics.	2	2.5
	Total	**5**	**7.5**
	Prerequisites: Students can understand the basics of general and inorganic chemistry and of geophysics and can apply simple chemical analytical methods.		
	Prerequisites: none		

8.	Compulsory Module: Meteorological Instrumentation and Measurement Lab	h	ECTS-Credits
a.	**VO Instrumentation** Introduction to meteorological instruments.	2	4
b.	**SL Meteorological Measurements Lab** Practical work with meteorological instruments and documentation.	2	3.5
	Total	**4**	**7.5**
	Learning Outcomes: Students can carry out and document basic experiments in the lab and in the field. Students have an overview of the main content of the study programme and of its later development.		
	Prerequisites: none		

9.	Compulsory Module: Atmospheric Radiation, Micrometeorology	h	ECTS-Credits
a.	**VO General Meteorology: Radiation** Understand the physics of solar and terrestrial radiation in the atmosphere; Basic Introduction - the sun - extinction - radiative transfer through the atmosphere - basics of photochemistry (UV radiation) - atmospheric optics.	2	3.5
b.	**UE General Meteorology: Radiation** Discussion, specialisation and exercises of the content presented in the lecture.	1	1
c.	**VO Micrometeorology** Know the near-surface meteorological conditions and processes determining the exchange of energy, momentum and matter between the atmosphere and different surface types and conditions.	2	3
	Total	**5**	**7.5**
	Learning Outcomes: Students can understand typical processes and structures of the boundary layer and of atmospheric radiation and can identify and solve problems in these areas.		
	Prerequisites: successful completion of compulsory modules 4 and 8		

10.	Compulsory Module: Thermodynamics	h	ECTS-Credits
a.	**VO Theoretical Meteorology: Thermodynamics** Introduction of the theoretical background, which leads to the derivation of the fundamental laws of thermodynamics and, in particular, those relevant for the understanding and modelling of the Earth's atmosphere.	3	6
b.	**UE Theoretical Meteorology: Thermodynamics** Discussion, specialisation and exercises of the content presented in the lecture.	1	1.5
	Total	**4**	**7.5**
	Learning Outcomes: Students can recognise connections between the condition of the atmosphere and its development as well as being able to diagnose simple relationships between them.		
	Prerequisites: successful completion of compulsory modules 4 and 8		

11.	Compulsory Module: Weather Analysis and Forecasting 1, Scientific Working	h	ECTS-Credits
a.	**VU Weather Analysis and Forecasting 1** Introduction of the mechanisms influencing weather at different spatial and temporal scales; conceptual models of the most important processes influencing weather.	3	5.5

b.	**PS Scientific Working** Quality criteria for scientific working, general information on preparing a Bachelor's thesis, literature work, literature survey, structure of a science thesis, writing style, tips for compiling figures, tables and equations, scientific presentations.	1	2
	Total	**4**	**7.5**
	Learning Outcomes: Students understand the basic concepts of weather phenomena from the planetary to the synoptic scale; they can autonomously analyse weather data and explain the likely outcomes. The also understand the basic concepts of scientific research and apply these in practice. This refers to standards of good scientific practice, the use of literature and scientific instruments and recognition of relevant scientific problems.		
	Prerequisites: successful completion of compulsory modules 4 and 8		

12.	**Compulsory Module: Statistics, Scientific Programming**	**h**	**ECTS-Credits**
a.	**VU Probability Theory and Statistics** The motion of probability, some discrete and continuous probability spaces, conditional probability, independence, random variables and their distributions, expectation and variance, correlation, the central limit theorem, estimation of parameters, chi-square-test.	2	4
b.	**PR Programming** The course covers the basic syntax of a programming language and its application to meteorological problems.	3	3.5
	Total	**5**	**7.5**
	Learning Outcomes: Students are able to apply autonomously basic concepts of statistics and of a programming language on meteorological data.		
	Prerequisites: successful completion of compulsory modules 4 and 8		

13.	**Compulsory Module: Mathematical Methods**	**h**	**ECTS-Credits**
a.	**VO Mathematical Methods of Physics 1** Ordinary differential equations, vector analysis in eucledean spaces, Fourier series and Fourier transform, probability theory.	3	4.5
b.	**UE Mathematical Methods of Physics 1** Discussion, specialisation and exercises of the content presented in the lecture considering atmospheric sciences issues; exercises of scientific arguing and presentation of mathematical contents.	2	3
	Total	**5**	**7.5**
	Learning Outcomes: Students can apply the mathematical methods they have learnt to problems of meteorology and of physics.		
	Prerequisites: successful completion of compulsory modules 1, 2 and 3		

14.	Compulsory Module: Dynamics of the Atmosphere	h	ECTS-Credits
a.	**VO Theoretical Meteorology: Dynamic** Basic understanding of atmospheric dynamics, conservation laws, simple applications, circulation and vorticity, Planetary Boundary Layer.	3	6
b.	**UE Theoretical Meteorology: Dynamic** Discussion, specialisation and exercises of the content presented in the lecture.	1	1.5
	Total	**4**	**7.5**
	Learning Outcomes: Students are able to understand the cause and effect of dynamic processes in the atmosphere and to diagnose and forecast atmospheric currents.		
	Prerequisites: successful completion of compulsory modules 1, 2, 3, 4, 6 and 8		

15.	Compulsory Module: The Alps and Europe	h	ECTS-Credits
a.	**VO Tirol, Alps, Europe** The lecture presents and discusses the basic conditions of natural spaces as well as socio-economic structures and their interactions in different dimensions and time scales.	2	4
b.	**EU Field Course** The field course illustrates concrete examination areas and demonstrates and interprets their connections in terms of quality and quantity.	2	3.5
	Total	**4**	**7.5**
	Learning Outcomes: Students know the natural spatial spheres that are typical of Europe (lithosphere, hydrosphere, kryosphere, atmosphere, biosphere,) and social spatial structures and can carry out measurements in the field to analyse and evaluate them.		
	Prerequisites: successful completion of compulsory modules 4 and 8		

16.	Compulsory Module: Geoinformatics 1	h	ECTS-Credits
	VU Introduction to Geographical Information Systems (GIS) The course conveys the basic principles of geographical information systems, with special attention to different data models, administration, analysis, and presentation possibilities in theory and practice.	4	7.5
	Total	**4**	**7.5**
	Learning Outcomes: Students have mastered the basics of geoinformatics and know the basic functions of a geographical information system.		
	Prerequisites: successful completion of compulsory modules 4 and 8		

17.	Compulsory Module: Remote Sensing	h	ECTS-Credits
a.	**VO Fundamentals of Remote Sensing** Basic measurement principles of remote sensing; electromagnetic wave propagation; interaction of EM waves with matter, radiative transfer, satellites and sensors, methods for inversion of remote sensing measurements for sensing the atmosphere and earth surface.	2	4
b.	**UE Fundamentals of Remote Sensing** Elaboration of practical tasks on the topics addressed in the lecture.	1	1.5
c.	**VO Radar in Meteorology** The course treats information about the functionality of a weather radar, the measurement parameters and interpretation of the measurements.	1	2
	Total	**4**	**7.5**
	Learning Outcomes: Students understand the physical bases and measurement methods for remote sensing of the earth surface and atmosphere and they can measure and evaluate the corresponding measurement data.		
	Prerequisites: successful completion of compulsory modules 1, 2, 4, 6 and 8		

18.	Compulsory Module: Weather Analysis and Forecasting 2	h	ECTS-Credits
a.	**VU Weather Analysis and Forecasting 2** The course treats automated forecasts applying statistical postprocessing to output from numerical weather prediction models; how to handle forecast uncertainty: ensemble forecasts and their verification; analysis and forecast of mesocale weather phenomena using appropriate tools (limited area models, objective analyses, radar, satellite, webcams, traditional observing system); applying knowledge to case studies.	3	5.5
b.	**PR Daily Weather Briefing 1** Based on the available forecasting instruments, such as numerical (post-processed) output, satellite images, synoptic station observation, radar etc., the students create an overall picture of the synoptic situation, regional, local spot prognoses, formulate them consistently in consideration of forecasting uncertainty and present the prognoses to the other participants of the course.	1	2
	Total	**4**	**7.5**
	Learning Outcomes: Students understand the effects and consequences of forecasting insecurity, the processes on the Mesos scale and can prepare weather forecasts and verify them with it.		
	Prerequisites: successful completion of compulsory modules 1, 2, 3, 4, 6, 8 and 11		

19.	Compulsory Module: Solid Earth 1	h	ECTS-Credits
a.	**VO System Earth 1** The lecture gives an overview over the principles of endogenous processes of the lithosphere and the dynamic change of the Earth's surface in geological time scales; overview over the most important contents of the study: building blocks of the solid Earth, plate tectonics, cycle of rock formation, processes that modify the surface of the Earth on different time scales, formation of the Earth, evolution of life.	2	4
b.	**VO System Earth 2** The lecture gives an overview over the most important contents of the study: building blocks of the solid Earth, plate tectonics, cycle of rock formation, processes that modify the surface of the Earth on different time scales, formation of the Earth, evolution of life.	2	3.5
	Total	**4**	**7.5**
	Learning Outcomes: Students are oriented towards the basics of the endogenous processes of the lithosphere and of the dynamic change in the earth's surface on geologicial time scales and possess basic knowledge of the historical development of life.		
	Prerequisites: none		

20.	Compulsory Module: Gases and Aerosols	h	ECTS-Credits
a.	**VO General Meteorology: Gases and Aerosols** The lecture introduces properties and processes of atmospheric gases, aerosols and clouds.	3	6
b.	**UE General Meteorology: Gases and Aerosols** Discussion, specialisation and exercises of the content presented in the lecture.	1	1.5
	Total	**4**	**7.5**
	Learning Outcomes: Students understand the meaning of gases and aerosoles for the weather and the climate and can work out task problems in this area.		
	Prerequisites: successful completion of compulsory modules 1, 2, 3, 4, 6, 7 and 8		

21.	Compulsory Module: Climate, Glaciology, Hydrology	h	ECTS-Credits
a.	**VO The Climate System** The lecture treats the principles and basics of modelling the climate system and its components atmosphere, hydrosphere and biosphere and their interactions.	2	3.5
b.	**VO Glaciology and Hydrology** Basic principles of global hydrological cycle and the formation, distribution and physical characteristics of ice and glaciers.	2	3

c.	**UE Climate System, Glaciology and Hydrology** Specialisation and exercises of the content presented in the two lectures.	1	1
	Total	**5**	**7.5**
	Learning Outcomes: Students understand the basics of the climate system and of the processes and back coupling, the function between the components and the krosphere and the hydrosphere.		
	Prerequisites: successful completion of compulsory modules 1, 2, 3, 4, 6, 7 and 8		

22.	**Compulsory Module: Seminar with Bachelor Thesis**	**h**	**ECTS-Credits**
	SE Bachelor Thesis Seminar Writing and presenting the bachelor's thesis within a seminar presentation.	1	2.5 +12.5
	Total	**1**	**15**
	Learning Outcomes: Students write a thesis on a topic from atmospheric sciences that meet the requirements of good scientific practice and present the results in the form of a lecture for discussion.		
	Prerequisites: successful completion of compulsory modules 1 to 16		

(2) From the following elective modules, one module, amounting to 7.5 ECTS-Credits, is to be chosen and taken:

1.	**Elective Module: Gender Studies and People Skills**	**h**	**ECTS-Credits**
a.	**VO Gender Studies** Basic knowledge of gender studies including: history of the research field; key terms, ideas and research topics; awareness about gender relations in everyday life; understand the integrative function of the interdisciplinary field of gender studies especially between natural and social sciences; insights into chosen topics of gender studies in particular within geography; history of gender studies and related research fields; key fields of research and applications.	2	4
a.	**VO Social Skills** The lecture gives insights into areas of social skills, including communication techniques, conflict management, cross-cultural skills, cooperative and self-organized interventions, solidarity skills, ethical skills, mediation skills.	2	3.5
	Total	**4**	**7.5**
	Learning Outcomes: Students are aware of the on-going gender aspects and in their professional practice they can work towards a more human society with equal rights for both genders.		
	Prerequisites: none		

2.	Elective Module: Interdisciplinary Skills	h	ECTS-Credits
	Courses with a total of 7.5 ECTS-Credits can be chosen from other bachelor's programmes at the University of Innsbruck.		7.5
	Total		**7.5**
	Learning Outcomes: Students have at their disposal additional competencies and skills from other scientific disciplines.		
	Prerequisites: the prerequisites of the respective curricula do apply.		

3.	Elective Module: Internship	h	ECTS-Credits
	To try out and apply acquired knowledge and skills and practice and to orientate themselves to the conditions of professional practice and the acquisition of professionally-relevant qualifications, students are able to complete a subject-relevant placement in institutions outside the university like state and private weather services, provincial institutions and insurance firms, research institutions, etc. amounting to 180 hours, or rather 7.5 ECTS-Credits. The placement can take place during the teaching-free period. A certificate is to be presented by the institution stating the duration, extent and content of the task completed and a report is to be written thereon. Before beginning the placement, approval of it is to be obtained from the Director of Studies.		7.5
	Total		**7.5**
	Learning Outcomes: Students can apply their acquired knowledge in their daily professional lives.		
	Prerequisites: successful completion of compulsory modules 4, 8, 9 and 11		

§ 6 Studies Induction and Orientation Stage

(1) Within the scope of the studies induction and orientation stage, which takes place in the first semester, the following course examinations must be passed:

1. VO Introduction to Atmospheric Science (CM 4 lit. a/2 hrs. /4 ECTS-Credits),
2. VO Introduction to Climatology (CM 4 lit. b/2 hrs. /3.5 ECTS-Credits),
3. VO Physics I: Mechanics and Thermodynamics (CM 3 lit. a/4 hrs. / 6 ECTS-Credits).

(2) Successful passing of all exams of the Studies Induction and Orientation Stage entitles to passing all further courses and examinations as well as to writing the Bachelor's Thesis.

(3) Before successful completion of the Studies Induction and Orientation Stage courses amounting to 16.5 ECTS-Credits may be passed. The requirements specified in the curriculum must be met.

§ 7 Bachelor's Thesis

(1) A bachelor's thesis, amounting to 12.5 ECTS-Credits, is to be completed and presented within the context of the compulsory module 22.

(2) The bachelor's thesis is to be submitted in paper form and in digital version as determined by the Director of Studies.

§ 8 Examination regulations

(1) A module is completed when all of its courses have been successfully completed.

(2) Course examinations are:

1. Examinations that assess the knowledge and skills covered in the lectures in which course assessment is based on a single examination at the end of the course. The course instructor has to define and communicate the method of examination (written or oral) before the course begins.
2. Evaluation in continuous assessment courses (‚immanent examination') is based on written, oral and/or practical contributions within the context of the course. The methods of evaluation are to be defined by the instructor before the start of the course.

(3) The Director of Studies evaluates the "Internship" elective module based on a report written by the students and the confirmation of the respective institution on the duration, scope and contents of the work done. Successful evaluation reads "passed with success" ("mit Erfolg teilgenommen"), negative evaluation reads "passed without success" ("ohne Erfolg teilgenommen").

§ 9 Academic degree

Graduates of the Bachelor's Programme Atmospheric Sciences are awarded the academic degree "Bachelor of Science", abbreviated "BSc".

§ 10 Coming into force

(1) The curriculum is effective as of 1 October 2010.

(2) §§ 5 and 11 in the version published in the University of Innsbruck Bulletin of 8 June 2011, Issue 26, No 464 is effective as of 1 October 2011 and applies to all students.

(3) § 6 in the version published in the University of Innsbruck Bulletin of 8 June 2011, Issue 26, No 464 is effective as of 1 October 2011 and applies to all students beginning their degree programme as of winter semester 2011/2012.

(4) [invalidated acc. to § 5]

(5) § 10 para. 4 ceases to be effective after 30 September 2014.

(6) § 6, as announced in the University of Innsbruck Bulletin of 8 June 2011, Issue 26, No. 464, ceases to be effective after 31 December 2015.

(7) § 6 in the version of the University of Innsbruck Bulletin of 2 June 2016, Issue 37, No. 441 comes into force on 1 October 2016 and is to be applied to all students commencing their study programme as of the 2016/2017 winter semester and to all students, who have not yet passed the courses of the studies induction and orientation stage according to the previous regulations.

(8) § 5 par. 1 no. 3 and § 8 par 2 no. 1 in version of the University of Innsbruck Bulletin of 2 June 2016, Issue 37, No. 441 come into force on 1 October 2016 and are to be applied to all students.

§ 11 Transitional provisions

For students, who have started their study programme before the 2016/2017 winter semester, the limitation of ECTS-Credits that may be passed before completion of the studies induction and orientation stage according to §6 par. 3 in the version of the University of Innsbruck Bulletin of 2 June 2016, Issue 37, No. 441 is not to be applied before 30 November 2017. After that point in time more courses and examinations may only be taken after successful completion of the whole studies induction and orientation stage.

Appendix 1:

Recognition of examinations

The course examinations successfully completed and required by the curriculum for the Bachelor's Programme in Geo- and Atmospheric Sciences at the University of Innsbruck (in the version published in the University of Innsbruck Bulletin of 27 April 2007) are considered equivalent according to § 78 Para 1 UniStG 2002 to the Bachelor's Programme in Atmospheric Sciences at the University of Innsbruck as follows:

Successfully completed examinations			**Recognition as:**		
Bachelor's Programme in Geo- and Atmospheric Sciences, curriculum of 27 April 2007	ECTS-Credits	h	**Bachelor's Programme in Atmospheric Sciences, curriculum 2010**	ECTS-Credits	h
Module 2: Introduction to Mathematics	**7.5**		**Compulsory module 1: Mathematics 1**	**7.5**	
Module 4: Solid Earth	**7.5**		**Compulsory module 19: Solid Earth 1**	**7.5**	
Module 5: Atmospheric Sciences (1)			**Compulsory module 4: Introduction to Atmospheric Sciences**		
Introduction to Meteorology 1	4.0	VO 2	Introduction to Atmospheric Sciences	7.5	VO 4
Climatology / Hydrology / Glaciology	3.5	VO 2			
Module 7: The Alps and Europe			**Compulsory module 15: The Alps and Europe**		
Tirol, Alps, Europe	4.0	VO 2	Tirol, Alps, Europe	4.0	VO 2
Field Course	3.5	UE2	Field Course	3.5	UE 2
Module 24: Physics (1)	**7.5**		**Compulsory module 3: Physics 1**	**7.5**	
Module 41: Mathematics (2)	**7.5**		**Compulsory module 2: Mathematics 2**	**7.5**	
Module 42: Physics (2)	**7.5**		**Compulsory module 6: Physics 2**	**7.5**	
Module 28: Chemistry and Geophysics			**Compulsory module 7: Introduction to Chemistry and Geophysics**		
General and Inorganic Chemistry	3.5	VO 2	General and Inorganic Chemistry	3.5	VO 2
General and Inorganic Chemistry	1.5	UE1	General and Inorganic Chemistry	1.5	UE 1

Geophysics	2.5	VO 2	Geophysics	2.5	VO 2
Module 44: Theoretical Meteorology (1)			**Compulsory module 10: Thermodynamics**		
Theoretical Meteorology 1	4.5	VO 3	Theoretical Meteorology: Thermodynamics	6.0	VO 3
Exercise Course on Theoretical Meteorology 1	3.0	UE1	Theoretical Meteorology: Thermodynamics	1.5	UE 1
Module 46: Climate and Cyosphere			**Compulsory module 21: Climate, Glaciology, Hydrology**		
The Climate System	4.0	VO 2	The Climate System	3.5	VO 2
Glaciology	3.5	VO 2	Glaciology and Hydrology and	3.0	VO 2
			Climate System, Glaciology and Hydrology	1.0	UE 1
Module 49: Remote Sensing			**Compulsory module 17: Remote Sensing**		
Basic Principles of Remote Sensing	4.0	VO 2	Basic Principles of Remote Sensing	4.0	VO 2
Exercise Course on Principles of Remote Sensing.	1.5	UE1	Basic Principles of Remote Sensing	1.5	UE 1
Radar in Meteorology	2.0	VU 1	Radar in Meteorology	2.0	VO 1
Module 11: Geoinformatics	**7.5**		**Compulsory module 16: Geoinformatics 1**	**7.5**	
Module 51: Seminar with Bachelor Thesis	**15.0**		**Compulsory module 22: Seminar with Bachelor Thesis**	**15.0**	
Transfer according to courses					
Fundamentals of Statistics (Module 6)	4.0	VO 2	Probability Theory and Statistics (Module 12)	4.0	VU 2
Instrumentation (Module 40)	3.5	VO 2	Instrumentation (Module 8)	4.0	VO 2
Weather Analysis and Forecasting 1 (Module 47)	4.0	VU 2	Weather Analysis and Forecasting 1 (Module 11)	5.5	VU 3
General Meteorology 1 (Module 47)	3.5	VO 2	General Meteorology: Radiation (Module 9) and	3.5	VO 2
			General Meteorology: Radiation (Module 9)	1.0	UE 1
Theoretical Meteorology 2 (Module 48)	3.5	VO 2	Theoretical Meteorology: Dynamic (Module 14)	6.0	VO 3

Exercise Course on Theoretical Meteorology 2 (Module 48)	2.0	UE1	Theoretical Meteorology: Dynamic (Module 14)	1.5	UE 1
Daily Weather Briefing 1 (Module 48)	2.0	PR1	Daily Weather Briefing 1 (Module 18)	2.0	PR 1
Weather Analysis and Forecasting 2 (Module 50)	4.0	VU 2	Weather Analysis and Forecasting 2 (Module 18)	5.5	VU 3
General Meteorology 2 (Module 50)	3.5	VO 2	General Meteorology: Atmospheric Gases and Aerosols (Module 20) and	6.0	VO 3
			General Meteorology: Atmospheric Gases and Aerosols (Module 20)	1.5	UE 1
Meteorological Measurements Laboratory (Module 43)	4.0	PR2	Meteorological Instrumentation and Measurement Lab (Module 8)	3.5	SL2
Digital Data Processing (Module 43)	3.5	VO 2	Programming 1 (Module 12)	3.5	PR3
Introduction to Meteorology 2 (Module 40)	4.0	VO 2	Micrometeorology (Module 9)	3.0	VO 2

Appendix 2:

The course examinations by the curriculum for the Bachelor's Programme in Atmospheric Sciences (in the version published in the University of Innsbruck Bulletin of 21 June 2010, Issue 30, No 315) are considered equivalent to the course examinations by the curriculum (in the version published in the University of Innsbruck Bulletin of 8 June 2011, Issue 26, No 464) as follows:

Course examination	**equivalent to**	**course examination**
VO Introduction to Atmospheric Science and Climatology (4 h / 7.5 ECTS-Credits)		VO Introduction to Atmospheric Science (2 h / 4 ECTS-Credits) and VO Introduction to Climatology (2 h / 3.5 ECTS-Credits)
VO System Earth (4 h / 7.5 ECTS-Credits)		VO System Earth 1 (2 h / 4 ECTS-Credits) and VO System Earth 2 (2 h / 3.5 ECTS-Credits)