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

(New release 2025)

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§ 1 Allocation of the study programme

Pursuant to §54 para. 1 Universities Act 2002, the Bachelor's Programme in Atmospheric Sciences is grouped among the natural science study programmes.

§ 2 Admission

Admission to the programme is granted by the Rectorate in accordance with the provisions of the Universities Act 2002 – UA on admission to bachelor's programmes.

§ 3 Qualification profile

(1) Subject-specific competences: Graduates understand the processes in the atmosphere and their connection to other components of the Earth system. They have in-depth knowledge and practical skills with which they can understand, analyse and predict complex interacting processes in the atmosphere system of the Earth. They have a critical understanding of the theoretical fundamentals of flows in the atmosphere and air chemistry, the numerical prediction of weather and climate and climate change and can evaluate and analyse data from the measuring platforms to record the state of the Earth's atmospheric system on many spatial-temporal scales. Due to the institute's research focus in the field of atmosphere on mountains, the graduates understand the processes that come about through the interaction of the atmosphere with the mountains and can also analyse and predict them. These special skills can be applied globally – about a quarter of the total land mass is mountainous. The advanced skills in meteorology, atmospheric chemistry, atmospheric physics, climate and climate change enable graduates to solve complex problems. They are innovative and have the skill required for solving novel problems. Graduates can manage complex projects in their field of expertise and take on decision-making responsibility.

(2) Interdisciplinary competences: Graduates master the mathematical and physical principles and tools with which the processes within the atmosphere can be described, analysed and predicted. They are sufficiently familiar with the mathematical language and way of thinking to independently familiarise themselves with new mathematical methods and tools and thus are able to deal with the rapid growth in knowledge, data and methods in the future. Thanks to their frequently applied and trained analytical way of thinking, they can solve unknown problems and identify the essential building blocks necessary for the solution. Graduates are proficient in programming languages and, with skills in statistics, machine learning and data science, can not only analyse and evaluate the huge amount of data from the measurement and prediction of the earth-atmospheric system, but also data from other specialist areas. They have the skills to read scientific literature critically and analytically, to formulate and test scientific hypotheses and to write down and present scientific and technical results. They can work in teams. Their profound understanding of the processes in the atmospheric system of the Earth that lead to climate change and the methods and results of climate projections enable them to make a direct and critical contribution to measures required to reduce the consequences of climate change - one of the most important sustainability goals in the first half of the 21st century. In Individual Choice of Specialisation, the graduates acquire skills for working in an interdisciplinary way.

(3) Professional qualifications: Graduates are qualified for tasks in private and public weather forecasting and in economic areas that are affected by weather and climate, such as environment, energy, transport, finance and insurance and tourism. This also includes engineering and planning offices specialising in renewable energies and energy-efficient buildings. They have the necessary skills to contribute to the general good in public institutions at federal and state level in the environmental sector - air quality, hydrography, urban climate, avalanche warning services, etc. The skills in software and data science in combination with analytical thinking enable them to work in professional fields in which large amounts of data have to be analysed and processed.

(4) Consecutive character: The Bachelor's Programme in Atmospheric Sciences prepares students for a relevant master's programme in the field of the atmospheric system of the Earth, such as atmospheric sciences, climate sciences, environmental meteorology, glaciology, atmospheric chemistry, hydrology, earth exploration.

§ 4 Scope and duration

The Bachelor's Programme covers 180 ECTS-Credits. This corresponds to a study duration of six semesters. One ECTS-Credit corresponds to a workload of 25 hours.

§ 5 Language

The following modules and their courses and the associated examinations are offered in English:

1. Compulsory Module 1: VO Introduction to Atmospheric Sciences
2. Compulsory Module 6: Atmospheric Physics and Chemistry
3. Compulsory Module 7: VU Introduction for Programming for Atmospheric Sciences
4. Compulsory Module 8: Atmospheric Dynamics and Weather Forecasting 1
5. Compulsory Module 9: Atmospheric Dynamics and Weather Forecasting 2
6. Compulsory Module 10: Climate System
7. Compulsory Module 11: Applied Methods
8. Compulsory Module 13: Seminar with Bachelor's Thesis
9. Elective Module 1: Advanced Atmospheric Studies
10. Elective Module 2: Advanced Climate Sciences

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

(1) Courses without continuous 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: no maximum number of participants

(2) Courses with continuous performance assessment:

1. Practical courses (PR) provide practical experience with concrete scientific tasks, complementing occupational and academic training. Maximum number of participants: 12
2. 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
3. Seminars (SE) as a forum for academic discussion of the content, methods and techniques of one or more subject areas, including the presentation and discussion of student contributions. Maximum number of students: 5
4. Tutorials (UE) focus on the practical treatment of specific tasks in a specialist area and on practicing specific skills. Maximum number of students per course: 25.
5. Lectures-tutorials (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

§ 7 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 will 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 will be randomly allocated.

§ 8 Studies induction and orientation stage

(1) Within the scope of the studies induction and orientation stage, which takes place in the first semester, the courses of compulsory module 1 lit. and lit. b are to be passed:

a) VO Introduction to Atmospheric Sciences (1 h, 2 ECTS-Credits),

b) VO Physics 1: Mechanics and Thermodynamics (4 hrs. /6 ECTS-Credits).

(2) Successful passing of all examinations of the studies induction and orientation stage entitles to passing all further courses and exams as well as to writing the Bachelor's Thesis.

(3) Before the completion of the studies induction and orientation stage, courses covering a total of 22 ECTS-Credits may be passed from the compulsory modules 1 -11. The prerequisites specified by the curriculum are to be met.

§ 9 Compulsory and elective modules

(1) Compulsory modules covering a total of 135 ECTS-Credits are to be passed:

1.	**Compulsory Module: Introduction to Atmospheric Sciences and Physics**	**h**	**ECTS-Credits**
a.	**VO Introduction to Atmospheric Sciences** Overview of the composition, processes and phenomena in the atmosphere, weather, climate and climate change	1	2
b.	**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
c.	**UE Physics 1: Mechanics and Thermodynamics** Discussion, advanced study and practising of the contents of the lecture: practising scientific reasoning and the presentation of physical contents; independent study of selected examples from the field	2	2
	Total	**7**	**10**
	Learning Outcomes ad a.: Students can describe, in general terms, the processes in the atmosphere that determine weather, climate, and climate change. ad b.: Students can describe the concepts of classical mechanics and thermodynamics and explain the associated concepts. They are able to independently develop further concepts of mechanics and thermodynamics. ad c.: Students are able to transfer their knowledge and solve problems in mechanics and thermodynamics independently. They are able to explain how they solved these problems and present and discuss them in a way that is tailored to the target audience.		
	Prerequisite/s: none		

2.	**Compulsory Module: Linear Algebra**	**h**	**ECTS-Credits**
a.	**VO Linear Algebra** Matrix calculation; systems of linear equations; vector spaces, linear mappings, eigenvalue problems	3	4.5
b.	**UE Linear Algebra** Discussion, advanced study and practising of the contents of the lecture: practising scientific reasoning and the presentation of mathematical contents	1.5	2.5
	Total	**4.5**	**7**

	Learning Outcomes ad a.: Students are able to use matrix calculus and the Gauss algorithm; explain and illustrate the concept of vector space based on linear equation systems; understand the connection between the abstract algebraic concepts of vector space and linear mappings, as well as the concrete concept of linear equation systems; explain the significance of a scalar product for a more in-depth geometric interpretation of vector spaces; use determinants and eigenvalues to analyse and classify linear mappings and matrices; apply fundamental concepts of linear algebra to practical contexts; distinguish between different levels of abstraction in linear algebra. ad b.: Students can independently apply the concepts of linear algebra to solve problems. They are able to explain how to solve these problems and present and discuss them in a manner appropriate to the target audience.
	Prerequisite/s: none

3.	**Compulsory Module: Analysis 1**	**h**	**ECTS-Credits**
a.	**VO Analysis 1** Introduction to analysis; the necessary basic concepts of mathematics; real numbers; functions; differential and integral calculus in one variable	3	4.5
b.	**UE Analysis 1** Discussion, in-depth study and practice of the lecture content; practice in scientific argumentation and presenting mathematical content.	1.5	2.5
	Total	**4.5**	**7**
	Learning Outcomes ad a.: Students are able to explain the significance of real numbers for analysis and to explain key terms and concepts in analysis; to explain and illustrate the concept of limits in general for functions and specifically for sequences and series; to explain the concepts of continuity, differentiation and integration and important theorems in analysis; describe the relationship between the concepts of derivatives and integrals; check functions for key properties (continuity, differentiability, extrema and inflection points, integrability); calculate derivatives and integrals of real functions. ad b.: Students can generalise the concepts of analysis and are able to apply them independently to solve problems. They are able to explain how they solved these problems and present and discuss them in a way that is tailored to the target audience.		
	Prerequisite/s: none		

4.	**Compulsory Module: Calculation Methods**	**h**	**ECTS-Credits**
a.	**VO Calculation Methods** Vector calculus, matrix calculus, eigenvalues, spatial curves, fields, curve integrals, curvilinear coordinates, power series, Fourier series and Fourier transforms, ordinary differential equations, Gauss's and Stokes's integral theorems	4	4.5
b.	**UE Calculation Methods** Discussion, in-depth study and practice of the lecture content; practice in scientific argumentation and presentation of physics content.	2	2.5
	Total	**6**	**7**

	Learning Outcomes ad a.: Students can describe and apply concepts and methods of the fundamental calculation techniques required for physics. ad b.: Students have acquired the ability to independently apply their knowledge of calculation techniques to solve mathematical problems in a practical and computationally sound manner.
	Prerequisite/s: none

5.	**Compulsory Module: Analysis 2**	**h**	**ECTS-Credits**
a.	**VO Analysis 2** Fundamental topological concepts; differential calculus in several variables; integration on manifolds	4	6
b.	**UE Analysis 2** Discussion, in-depth study and practice of the lecture content; practice in scientific argumentation and presentation of physics content.	2	4
	Total	**6**	**10**
	Learning Outcomes ad a.: Students are able to check the continuity, differentiability and integrability of functions in several variables; distinguish between the conceptual changes in differential and integral calculus from one variable to several variables; explain basic topological concepts of Rn; discuss curves and surfaces as initial examples of differential geometry; use various integral theorems. ad b.: Students can independently apply differential and integral calculus as well as integral theorems to solve problems. They are able to explain how to solve these problems and present and discuss them in a manner appropriate for the target audience.		
	Prerequisite/s: none		

6.	**Compulsory Module: Atmospheric Physics and Chemistry**	**h**	**ECTS-Credits**
a.	**VU Atmospheric Thermodynamics and Cloud Processes** Thermodynamic conservation quantities, variables and laws in the atmosphere; thermodynamics of the humid atmosphere; thermodynamic diagrams; vertical stability/instability; processes for cloud formation, conservation and dissipation.	2	3
b.	**VU Atmospheric Radiation** Basics of electromagnetism; introduction to the theory of radiation transmission; energy balance from local to global scale; optics with a focus on optical phenomena in the atmosphere, remote sensing applications	3	5
c.	**VU Atmospheric Chemistry1** Basics of chemistry the atmosphere; chemical composition of the atmosphere; greenhouse gases; ozone in the stratosphere; tropospheric ozone chemistry, air pollution	4	6
d.	**VU Atmospheric Chemistry 2** Primary and secondary aerosols; formation of new particles; role of aerosols in air pollution, as condensation nuclei and in cloud physics	2	4
	Total	**11**	**18**

	Learning Outcomes ad a.: Students can analyse the thermodynamic state of the atmosphere and draw conclusions about the processes taking place in the atmosphere. They can explain the life cycle of clouds. ad b.: Students can explain and derive the fundamentals of electromagnetic radiation and its interactions with the Earth's atmosphere. They can analyse and discuss the effect of radiation on the Earth's energy balance. They are able to select suitable remote sensing methods for observing different scales of the Earth-atmosphere system and to analyse and interpret the measurement data generated by these methods. ad c.: Students can describe the basic chemical processes and chemical composition of the atmosphere, as well as the role of greenhouse gases and ozone in climate and air quality. They can explain ozone chemistry in the stratosphere and troposphere and assess its impact on the environment and health. They are also able to analyse air pollution and recognise its links to global environmental problems such as climate change. ad d.: Students can explain the differences between primary and secondary aerosols and how they are formed. They are able to describe the role of aerosols in air pollution, as condensation nuclei and in cloud formation. They can also critically analyse the significance of aerosols for the climate and the atmosphere.
	Prerequisite/s: none

7.	**Compulsory Module: Statistical Data Analysis and Programming**	**h**	**ECTS-Credits**
a.	**VO Statistical Data Analysis** Probability theory, descriptive statistics, one- and two-sample t-tests, ANOVA, chi-square test, robust methods, regression analysis	2	3
b.	**PS Statistical Data Analysis** Interactive in-depth study of the methods used in the course, application of suitable statistical software	2	4.5
c.	**VU Introduction to Programming for Atmospheric Sciences** Creation of algorithms and implementation in a programming language	3	5
	Total	**7**	**12.5**
	Learning Outcomes ad a. and b.: The students are able to define basic concepts of descriptive and inductive statistics and explain them in their own words; distinguish between and describe different types of statistical analysis in terms of their possible applications and information content; select and apply various inferential statistical methods (in particular t-tests, analysis of variance, Wilcoxon test, chi-square test, regression analysis) appropriate for empirical questions and interpret the results adequately; use statistical software confidently. ad c.: Students can read and write programmes in one of the open-source programming languages used in atmospheric sciences. They can install a programming environment with the appropriate add-on packages on their computer and use it to solve scientific problems. Above all, they are able to independently expand and develop their programming skills.		
	Prerequisite/s: none		

8.	Compulsory Module: Atmospheric Dynamics and Weather Forecasting 1	h	ECTS-Credits
a.	**VU Atmospheric Dynamics 1** Kinematics; conservation quantities and forces; equilibrium currents, vorticity and potential vorticity	3	5
b.	**VU Weather Analysis and Forecasting 1** Geostrophic and thermal wind; potential vorticity and cyclones and frontal systems; diagnosis, conceptual models and prediction of processes for weather events from the planetary to the frontal scale; analysis of weather (forecast) maps	3	5
	Total	**6**	**10**
	Learning Outcomes: ad a.: Students are able to derive the Navier-Stokes equations from the fundamental conservation laws (mass, momentum, and energy) and apply their simplifications to specific flow situations (e.g., incompressible, steady flows). They can explain atmospheric flow patterns using (potential) vorticity and its conservation. ad b.: Students are able to explain the processes underlying weather systems in mid-latitudes, analyse past and current weather situations, and predict future weather from the hemispheric to the frontal scale using numerical and statistical weather forecast data.		
	Prerequisite/s: none		

9.	Compulsory Module: Atmospheric Dynamics and Weather Forecasting 2	h	ECTS-Credits
a.	**VU Atmospheric Dynamics 2** Atmospheric energetics; disturbances and instabilities; wave representation; mesoscale and small-scale flows; convection; atmospheric predictability	3	5
b.	**VU Boundary Layer Meteorology** Energy balance and states of the planetary boundary layer; turbulence and turbulent flows; basic equations; Monin-Obukhov similarity theory; role of different surface textures and flow conditions; currents in the boundary layer; measurement and parameterisation of important parameters	3	5
c.	**VU Weather Analysis and Forecasting 2** Conceptual models, diagnosis and prognosis of processes that generate mesoscale weather events; forecast uncertainty and ensemble forecasts; forecasts for end users; determination of forecast quality; winter precipitation; ground/high fog; convection; orographic precipitation; foehn; point forecast	3	5
	Total	**9**	**15**
	Learning Outcomes ad a.: Students can explain which processes dominate atmospheric flows at different spatial scales, describe the various modelling approaches used to study them, and illustrate these approaches with examples. They are able to explain the predictability of atmospheric conditions. ad b.: Students can describe the processes that drive the exchange of energy, mass and momentum between the Earth's surface and the atmosphere within the planetary boundary layer. They can explain the different states of the planetary boundary layer and the role that different surface types and flow conditions play in this. They can analyse and interpret measurements of the boundary layer.		

	ad c.: Students can explain the processes that drive weather systems on the meso and convective scales. They can analyse current and past weather situations on these scales using data from a wide variety of measurement platforms and make forecasts.
	Prerequisite/s: none

10.	**Compulsory Module: Climate System**	**h**	**ECTS-Credits**
a.	**VU Climate System** Similarities and differences between climatology and meteorology; components of the climate system and their time scales; energy balance; simple models of the greenhouse effect; general circulation of the atmosphere and seas; atmospheric water cycle; statistics of the climate system; main modes of climate variability (ENSO, NAO); radiative forcing and climate feedback; introduction to climate prediction models	3	5
b.	**VU Cryosphere and Climate** Components of the cryosphere; types of glaciers and their behaviour; climate influence on glaciers; energy balance over snow/ice-covered surfaces; numerical models of glacier changes; feedback from the cryosphere to oceans and atmosphere; effects of changes in the cryosphere in the past/present/future	2	3
c.	**VU Climate Change** Climate change on geological timescales; carbon cycle; climate change in the Quaternary period; anthropogenic climate change from the early beginnings of agriculture to the industrial age; climate change in measurement records; tipping points in the climate system; projections of climate change	2	3
	Total	**7**	**11**
	Learning Outcomes ad a.: Students can describe the components of the climate system, their interactions and time scales. They can explain the energy balance and circulation of the atmosphere and oceans and their variability. They can apply simple greenhouse models. Students can describe the drivers and scales of climate change and evaluate proxy and measurement data used to determine them. They can explain and evaluate the structure, application and limitations of climate models and the procedure for creating climate projections. ad b.: Students can describe the properties and relative importance of the various components of the cryosphere and their interaction with the climate system. Students can apply simple glacier models and analyse simulated glacier behaviour. They can evaluate the significance of cryospheric feedbacks on the oceans and the atmosphere. ad c.: Students can describe the different periods of Earth's history and the associated climatic conditions. They can critically evaluate the methods used to reconstruct climate history and their uncertainties. They can explain the mechanisms that have led to climate change. They can describe the effects of anthropogenic activities on various components of the climate system. They can explain the concept of tipping points in the climate system and give examples. Students can compare different climate models and scenarios and assess the uncertainties in climate projections.		
	Prerequisite/s: none		

11.	Compulsory Module: Applied Methods	h	ECTS-Credits
a.	**VU Scientific Methods** Standards of good scientific practice; types of scientific literature; search, manage and cite scientific literature; structure of a scientific paper; processes and framework conditions for creating a Bachelor’s Thesis; basics of good scientific writing methods, the creation of tables and figures and the preparation and presentation of a scientific lecture	2	3
b.	**VU Atmospheric Observation Methods and Devices** Physical fundamentals and measurement principles of methods and devices used to measure atmospheric conditions	2	3.5
c.	**PR Atmospheric Observation Methods and Devices** Technical design and application of measuring systems for determining a wide range of atmospheric variables, e.g. temperature, humidity, wind, precipitation, sunshine/cloud cover and radiation components; Verification and quality control of measurement data	2	4
d.	**PR Weather Briefing** Analysis and forecast of the current weather and forecast uncertainty; presentation, verification and discussion of the forecast; use of various numerical weather forecast models and measurement platforms	1	2
	Total	**7**	**12.5**
	Learning Outcomes: ad a.: Students can describe the standards of good scientific practice and explain the structure and creation process of a scientific paper. They can apply the principles of good scientific writing style and create and deliver scientific presentations. ad b. and c.: Students identify and understand the connection between selected meteorological measurement methods and the underlying physical concepts. They can acquire further knowledge about observation and measurement methods in atmospheric sciences from specialist literature. They can calibrate sensors, program a measurement system and use it to take measurements, evaluate the quality of these measurements, and document and discuss the measurement experiment. ad d.: Students can analyse current weather developments and independently make forecasts for the weather in the coming days.		
	Prerequisite/s: none		

12.	Compulsory Module: Seminar with Bachelor’s Thesis	h	ECTS-Credits
	SE Seminar with Bachelor’s Thesis Theoretical and methodological discussion of research questions in atmospheric sciences; research for own research; writing a Bachelor's Thesis in accordance with the rules of good scientific practice; presentation and discussion of the bachelor's thesis with fellow students.	1	2.5 + 12.5
	Total	**-**	**15**
	Learning Outcomes Students are able to independently design a written paper on a topic from the field of atmospheric sciences that meets the requirements of good scientific practice, write it within a limited period of time, and present and discuss it in front of fellow students.		
	Prerequisite/s: positively passed compulsory module 11 and a minimum of 100 positively passed ECTS-Credits from the compulsory modules 1 to 10.		

(2) Elective modules covering altogether 15 ECTS-Credits are to be passed.

1.	Elective Module: Specialisation in Atmospheric Sciences	h	ECTS-Credits
	Advanced courses from all areas of atmospheric sciences in line with current research developments and socially relevant topics.	-	10
	Total	**-**	**10**
	Learning Outcomes Students can apply theoretical and conceptual knowledge to solve complex problems in their chosen areas of specialisation within atmospheric sciences and analyse and evaluate measurement and simulation data sets from these areas.		
	Prerequisite/s: none		

2.	Elective Module: Specialisation in Climate Sciences	h	ECTS-Credits
	Advanced courses in climate sciences in line with current research developments and socially relevant topics.	-	5
	Total	**-**	**5**
	Learning Outcomes Students can apply theoretical and conceptual knowledge to solve complex problems in their chosen areas of specialisation within atmospheric sciences and analyse and evaluate measurement and simulation data sets from these areas.		
	Prerequisite/s: none		

3.	Elective Module: Internship 1	h	ECTS-Credits
	Internship In order to test and apply the knowledge, skills and competences they have acquired, as well as to gain an orientation on the conditions of professional practice and to acquire professionally relevant qualifications, students can complete an internship of at least 120 hours (plus 5 hours for writing a report) at public and private institutions dealing with atmospheric science topics. The internship may be completed during the lecture-free period. Approval must be obtained from the Director of Studies before starting the internship. A certificate from the institution must be submitted confirming the duration, scope and content of the work performed; a report must also be written.	-	5
	Total	**-**	**5**
	Learning Outcomes Students can apply the knowledge and skills acquired during their training in a professional environment. They are familiar with the conditions of professional practice and can establish connections between theoretical knowledge and practical action, as well as reflect critically on these connections.		
	Prerequisite/s: study achievements covering 30 ECTS-Credits		

4.	Elective Module: Practice 2	h	ECTS-Credits
	Internship In order to test and apply the knowledge, skills and competences they have acquired, as well as to gain an orientation on the conditions of professional practice and to acquire professionally relevant qualifications, students can complete an internship of at least 120 hours (plus 5 hours for writing a report) at public and private institutions dealing with atmospheric science topics. The internship may be completed during the lecture-free period. Vor Approval must be obtained from the Director of Studies before starting the internship. A certificate from the institution must be submitted confirming the duration, scope and content of the work performed; a report must also be written.	-	5
	Total	**-**	**5**
	Learning Outcomes Students can apply the knowledge and skills acquired during their training in a professional environment. They are familiar with the conditions of professional practice and can establish connections between theoretical knowledge and practical action, as well as reflect critically on these connections.		
	Prerequisite/s: study achievements covering 30 ECTS-Credits		

(3) A further elective module covering 30 ECTS-Credits may be passed:

1.	Elective Module: Individual Choice of Specialisation	h	ECTS-Credits
	For individual specialisation, modules from the curricula of the bachelor's programmes established at the University of Innsbruck in the fields of geo- and atmospheric sciences, computer sciences, data science and statistics, mathematics, natural and engineering sciences, economic theory and philosophy as well as economy may be selected. Also, courses from the field of gender studies, women’s and gender research may be selected.	-	30
	Total	**-**	**30**
	Learning Outcomes Students possess knowledge and skills outside the core areas of atmospheric sciences that enable them to solve complex and unpredictable problems in an interdisciplinary manner. They understand the challenges posed by climate change and resource scarcity and are able to apply, analyse, and evaluate solutions to these problems. They possess the skills to solve complex tasks in teams in a multilingual and multicultural environment in a gender-equitable manner.		
	Prerequisite/s: The prerequisites specified by the respective curricula are to be met.		

Instead of the elective modules acc. to §8 para. 3, a subject-relevant Minor for Bachelor’s Programmes may be passed provided that places are available. Minors are fixed modules from other disciplines covering 30 ECTS-Credits. They are announced in the University of Innsbruck Bulletin.

§ 10 Bachelor’s Thesis

(1) A Bachelor’s Thesis covering 12.5 ECTS-Credits is to be written. The Bachelor’s Thesis corresponding to 12.5 ECTS-Credits is to be written and presented within the scope of compulsory module 12.

(2) The Bachelor's Thesis must be submitted in the form specified by the course instructor. It must be accompanied by an affidavit confirming that the rules of good scientific practice have been followed.

§ 11 Examination regulations

(1) A module, with the exception of the Modules Internship 1 and Internship 2 is passed by positive evaluation of all its courses.

(2) The performance evaluation of the compulsory modules - with the exception of compulsory modules 2 – 5 – is carried out by course examinations. Course examinations serve to proof the knowledge and skills imparted by a single course whereby

1. in the case of courses without continuous performance evaluation, the evaluation is based on a single exam at the end of the course.
2. in the case of courses with continuous performance evaluation the evaluation is based on at least two written, oral and/or practical contributions of the participants.

(3) The performance evaluation of compulsory modules 2-5 is based on the evaluation of the course with continuous performance evaluation and by an overall examination of the subject matter of all courses of the module. Positive evaluation of the course with continuous performance evaluation of the resp. module is a precondition for being admitted to the overall examination. The grade of this module is based on the grade of the overall examination.

(4) The course instructor has to define and announce the examination method (written and/or oral, exam paper) and the evaluation criteria before the start of the semester.

(5) The performance evaluation of the Modules Internship 1 and Internship 2 is carried out by the Director of Studies. Positive evaluation of the module reads “participated with success”, negative evaluation “participated without success”.

(6) Modules and courses taken from other study programmes are subject to the examination regulations of the curriculum they have been taken from. Extra-curricular Minors are subject to the examination regulations of this curriculum.

§ 12 Academic degree

Graduates of the Bachelor’s Programme in Atmospheric Sciences are awarded the academic degree of “Bachelor of Science”, abbreviated as “BSc”.

§ 13 Coming into force

This curriculum comes into force on 1 October 2025.

§ 14 Transitional provisions

(1) This curriculum applies to all students being admitted to the Bachelor’s Programme Atmospheric Sciences as of the winter semester of 2025/26.

(2) Regular degree students who have started the Bachelor’s Programme in Atmospheric Sciences as published in the University of Innsbruck Bulletin of 28 June 2021, Issue 87, No. 893 before 1 October 2025, are entitled to finish this study programme within a maximum of eight semesters from this point in time.

(3) If the Bachelor’s Programme in Atmospheric Sciences, published in the University of Innsbruck Bulletin of 28 June 2021, Issue 87, No. 893, is not finished in time, the students are subject to this curriculum.

(4) In addition, the students are entitled to subject to this curriculum on a voluntary basis.