

The English version of the curriculum for the „Doctor of Philosophy programme Atmospheric Sciences“ is not legally binding and is for informational purposes only. The legal basis is regulated in the curriculum published in the University of Innsbruck Bulletin on 17 March 2009, issue 41, No. 178.

Decision of the Curriculum Committee of the Faculty of Geo- and Atmospheric Sciences on 10.02.2009, approved by Senate Decree on 05.03.2010:

On the basis of § 25 para. 1 no. 10 University Organisation Act 2002, BGBl. I (Federal Law Gazette) No. 120, most recently amended by Federal Law BGBl. I (Federal Law Gazette) No. 134/2008 and § 32 Section "Regulations of Study Law", republished in the University of Innsbruck Bulletin of 3 February 2006, Issue 16, No. 90, most recently amended by the University of Innsbruck Bulletin of 7 May 2008, Issue 42, No. 272, the following is decreed:

**Curriculum for the  
Doctor of Philosophy programme Atmospheric Sciences  
at the Faculty of Geo- and Atmospheric Sciences  
of the University of Innsbruck**

**§ 1 Qualification profile and programme objectives**

- (1) The Doctor of Philosophy programme Atmospheric Sciences belongs to the group of studies in the natural sciences.
- (2) Graduates of the Doctor of Philosophy programme Atmospheric Sciences have a systematic understanding of their research discipline and the methods employed by research in this field.
- (3) The excellent qualifications acquired in the course of the doctoral studies empower graduates to employ their expertise in scientific and non-scientific careers and to adapt themselves to fast-changing requirements.
- (4) Through their submission of an original piece of scientific work, graduates of this program have made their own contribution to research which widens boundaries of knowledge and conforms to the evaluation standards of experts. They develop scientific questions and independently subject them to critical analysis.
- (5) Graduates are capable of independently designing and carrying out significant research projects with scientific integrity and are qualified to reflect on these processes in terms of the theory of science.
- (6) Graduates are particularly able to reflect on questions critically, to participate in objective discourse, and to work creatively.
- (7) Graduates of the Doctor of Philosophy programme Atmospheric Sciences are able to look beyond the boundaries of their own discipline and participate in inter-disciplinary scientific discourse.

## § 2 Length and scope

The Doctor of Philosophy programme Atmospheric Sciences takes three years (six semesters), which equals 180 ECTS credits.

## § 3 Admission

- (1) Valid proof of the necessary academic level for admission to the doctoral programme must be provided. This includes proof of completion of relevant diploma or master programmes, of completion of relevant diploma or master programmes at a university of applied science or completion of other equivalent studies at an accredited Austrian or non-Austrian post-secondary educational institution. If equivalency is given in principle, and only a few elements are missing for full equivalency, the rector's office is entitled to combine the determination of equivalency with the obligation to pass certain examinations in the course of the Doctor of Philosophy programme Atmospheric Sciences.
- (2) Relevant studies are in any case
  - 1: the Diploma Programme Meteorology and Geophysics at the University of Innsbruck,
  - 2: the Master Programme Atmosphere Sciences at the University of Innsbruck.

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

Courses with continuous performance assessment:

1. **Seminar (SE):** In seminars, content is acquired in guided self-study programmes. Maximum number of participants: 15
2. **Project seminar (PO):** In project seminars, the concept of the respective dissertation is developed. Maximum number of participants: 3
3. **Conversation class (KO):** In conversation classes, supervisors and students discuss research results on a regular basis and plan further research steps. Maximum number of participants: 3

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

Students whose study time will be prolonged if they are not admitted are to be given priority.

## § 6 Modules

(1) The following modules - equal to 60 ECTS credits – are mandatory:

1	Mandatory Module: Concept of Doctoral Thesis	Sem. hours	ECTS credits
	PO Elaboration and Presentation of the Concept of the Doctoral Thesis	2	15
	<b>Total</b>	2	15
	<b>Learning objectives of the module:</b> After intensive research (relevant literature, discussions with dissertation committee), students have worked out a written concept of the dissertation, have successfully presented it to a larger audience, and have defended it in scientific discourse.		
	<b>Admission requirements:</b> none		

2	<b>Mandatory Module: Generic Skills</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	Courses, as defined in the dissertation agreement, equal to 5 ECTS credits have to be completed. One course from the field of "Equality and Gender" is recommended. Additionally, courses are offered which develop didactic skills and competences for subsequent knowledge transfer of the field. A course from the field of philosophy and theory of science is recommended. Suitable options are marked in the course catalog.	-	5
	<b>Total</b>	-	5
	<b>Learning objectives of the module:</b> After the successful completion of this module, students command advanced theoretical and practical knowledge, skills and competences in selected disciplines, as well as methods and general skills which empower them to pursue independent scientific work and help them succeed in their future careers.		
	<b>Admission requirements:</b> none		

3	<b>Mandatory Module: Scientific Basics/Core Skills of the Thesis Topic</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	Courses, as defined in the dissertation agreement, equal to 15 ECTS credits have to be completed to develop the scientific basis for the dissertation topic.		15
	<b>Total</b>		15
	<b>Learning objectives of the module:</b> After the successful completion of this module, students possess the high level of interdisciplinary knowledge necessary for working on the dissertation.		
	<b>Admission requirements:</b> none		

4	<b>Mandatory Module: Participation at the Scientific Discourse</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	Active participation in national and international scientific discourse at conferences, through projects, or at summer/winter schools.		10
	<b>Total</b>		10
	<b>Learning objectives of the module:</b> In coordination with the dissertation board, students present and acquire research results in national and international forums; they analyze and critically assess their own research results and those of others.		
	<b>Admission requirements:</b> none		

5	<b>Mandatory Module: Comprehensive Seminar of the Doctoral Programme</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	<b>SE Graduate Seminar</b>	1	5
	<b>Total</b>	1	5
<p><b>Learning objectives of the module:</b>  Students are able to actively reflect on the current state of knowledge in the area of the dissertation and relevant related scientific disciplines. They acquire didactic skills which enable them to clearly present their research results to both experts and laypeople and to explain complicated correlations in a clearly understandable manner.</p>			
<p><b>Admission requirements:</b> positive completion of Mandatory Module 1</p>			

6	<b>Mandatory Module: Supervision Dialogue of Doctoral Thesis</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
a	<b>KO Analysis and Discussion of Research Results 1</b>	1	2.5
b	<b>KO Analysis and Discussion of Research Results 2</b>	1	2.5
	<b>Total</b>	2	5
<p><b>Learning objectives of the module:</b>  Students elaborate research results, analyze them critically, and reflect on them with the main supervisor and the dissertation committee; skills in scientific project management.</p>			
<p><b>Admission requirements:</b> none</p>			

7	<b>Mandatory Module: Doctoral Thesis Defense</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	Final oral dissertation defense taken before an examination board	-	5
	<b>Total</b>	-	5
<p><b>Learning objectives of the module:</b>  Presentation of, reflection on, and analysis of the dissertation results in the overall context of the doctoral study programme; the focus is on summarizing and explaining results of the research project, on presenting the increase in knowledge for the discipline, on demonstrating evaluation and method competences, as well as on presentation skills.</p>			
<p><b>Admission requirements:</b> positive completion of all other modules and positive evaluation of the dissertation</p>			

## **§ 7 Dissertation**

- (1) In the course of the Doctor of Philosophy programme Atmospheric Sciences, a dissertation has to be written, which equals 120 ECTS credits. The dissertation is a piece of scientific work in a special field of the atmospheric sciences which – in contrast to a diploma or master thesis – serves to prove the student's ability to cope with scientific questions in an independent way.
- (2) The dissertation can also consist of articles that are related in terms of subject matter or methods. The following quality criteria apply:
  1. The dissertation must consist of three articles accepted for publication by acknowledged scientific journals or of two articles accepted for publication by acknowledged scientific journals and one presentation which was accepted by an acknowledged scientific conference and was published.
  2. The student has to be the first author of a minimum of two of these articles. If the articles were written by several authors, the student's own contribution must be clearly shown and added to the dissertation.
  3. These articles have to be embedded in a comprehensive presentation of the research question and the current state of knowledge in the field; extensive critical assessment of the results and a summary are required.
- (3) The student has to propose a team of supervisors, consisting of at least two people (dissertation committee), and to nominate one of them as the supervisor mainly responsible. It is permissible to propose supervisors (with the exception of the main supervisor) from subject-related fields. In justifiable exceptional cases it is possible for students to propose only one supervisor.
- (4) Prior to beginning the work, the student has to communicate the dissertation topic and names of the supervisors in writing to the Director of Studies. If work on the dissertation requires monetary or non-monetary resources from university institutions, the allocation of these resources is possible only if the head of the respective institution has been informed of the planned allocation and has not vetoed it within one month because of significant negative influence on teaching and research. Topic and supervisors are considered as accepted, if the Director of Studies does not veto them by means of a decree within one month after the receipt of the proposal.

## **§ 8 Examination regulations**

- (1) The evaluation of Mandatory Modules 1, 2, 3, 5, and 6 is based on course examinations.
- (2) Mandatory Module 4 is evaluated by the main supervisor on the basis of a performance report written by the student.
- (3) The evaluation of Mandatory Module 7 "Doctoral Thesis Defense" is based on an oral exam taken before an examination board consisting of at least three examiners.

## **§ 9 Academic degree**

Graduates of the Doctor of Philosophy programme Atmospheric Sciences are awarded the academic degree of "Doctor of Philosophy" or "PhD", in brief.

## **§ 10 Implementation**

This curriculum comes into force on 1 October 2009.

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

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