

The English version of the curriculum for the „Doctor of Philosophy programme Earth 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 40, No. 177.

Decision of the Curriculum Committee of the Faculty of Geo- and Atmospheric Sciences on 10.02.2009, approved by Senate Decree on 05.03.2009:

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 Earth 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 Earth Sciences belongs to the group of studies in the natural sciences.
- (2) Graduates of the Doctor of Philosophy programme Earth Sciences have profound theoretical and systematic understanding of their research discipline and the methods employed by research in this field. Through their submission of an original piece of scientific work in a special field of the earth sciences, graduates of the Doctor of Philosophy programme Earth Sciences have made their own contribution to research which widens boundaries of knowledge and conforms to the evaluation standards of national and international experts. The excellent qualifications acquired during the doctoral programme qualify graduates to employ their expertise in scientific and non-scientific careers and to adapt themselves to fast-changing requirements.
- (3) The Doctor of Philosophy programme Earth Sciences at the University of Innsbruck serves to educate and train junior scientists in the field of the earth sciences, which understand themselves as a modern "Earth System Science" and combine field and laboratory research.
- (4) Doctoral or research projects can develop into programmes which are subsidized by an acknowledged national or international research funding institution and whose project leader is the main supervisor.

### **§ 2 Length and scope**

The Doctor of Philosophy programme Earth Sciences takes three years (six semesters). This 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 Magister 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 doctoral programme.
- (2) Relevant studies are in any case
- 1: the Diploma Programme Earth Sciences completed at the University of Innsbruck,
  2. the Master Programme Earth Sciences completed at the University of Innsbruck.

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

**Seminars (SE)** are courses with continuous performance assessment and serve to convey content through guided self-study programmes. Maximum number of participants: 10

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

Places in courses with a limited number of participants are allotted as follows: Students whose study time will be prolonged if they are not admitted are to be given priority.

### § 6 Mandatory modules

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

1	<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. Courses are offered which provide didactic skills and competences for subsequent knowledge transfer of the field. Completing one course in the area of "Equality and Gender" 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 select 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		

2	<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 7.5 ECTS credits have to be completed to develop the scientific basis/core competences for the dissertation topic.		7.5
	<b>Total</b>		7.5
	<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		

3	<b>Mandatory Module: Development and Presentation of Doctoral Concept</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	<b>SE Concept Elaboration and Presentation of the Dissertation</b>	2	12.5
	<b>Total</b>	2	12.5
	<b>Learning objectives of the module:</b> After intensive research (relevant literature, discussion with the dissertation committee and experts), 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		

4	<b>Mandatory Module: Analysis and Presentation of Own Results I</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	<b>SE Analysis and Presentation of the Student's Results I</b>	2	15
	<b>Total</b>	2	15
	<b>Learning objectives of the module:</b> Students have produced their own first research results, have successfully presented them to a larger audience, and have defended them in scientific discourse.		
	<b>Admission requirements:</b> positive completion of Module 3		

5	<b>Mandatory module: Analysis and Presentation of Own Results II</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	<b>SE Analysis and Presentation of the Student's Results II</b>	-	15
	<b>Total</b>	-	15
	<b>Learning objectives of the module:</b> Students have produced their own research results, have successfully presented them in the form of a lecture or poster at an international forum (scientific conference, workshop, or summer school) and have defended them in scientific discourse. The selection of the forum has to be coordinated with the dissertation committee.		
	<b>Admission requirements:</b> positive completion of Module 4		

6	<b>Mandatory Module: Doctoral Thesis Defense</b>	<b>Sem. hours</b>	<b>ECTS credits</b>
	Final oral dissertation defense before an examination board	-	5
	<b>Total</b>	-	5
	<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 presenting the results.		
	<b>Admission requirements:</b> positive completion of all other modules and positive evaluation of the dissertation		

## § 7 Dissertation

- (1) In the course of the doctoral programme, a dissertation has to be written, which equals 120 ECTS credits. The dissertation is a scientific piece of work in a special field of the earth 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 has to consist of a minimum of three articles, whereby a minimum of three must have been accepted for publication by acknowledged scientific journals.
  2. The students must 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.
  4. If the articles were written by several authors, the student's own contribution must be shown clearly and added to the dissertation.
- (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 the names of the supervisors in writing to the Director of Studies. 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 to 4 is based on course examinations. The evaluation of courses with continuous performance assessment is based on the student's regular written

and/or oral and/or practical-experimental contributions. The lecturer is required to communicate evaluation methods and criteria before the course starts.

- (2) Mandatory Module 5 is evaluated by the main supervisor on the basis of a performance report written by the student.
- (3) The evaluation of the Mandatory Module "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 Earth 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