

# Translation

Unofficial version of the  
**Examination Regulations for the Consecutive Master's Degree Program  
Physics of the Earth and Atmosphere**  
**of the Faculty Mathematics and Natural Sciences  
at the University of Bonn**  
Version: June 25, 2024

This unofficial version takes into account:

1. The Examination Regulations for the Consecutive Master's Degree Program Physics of the Earth and Atmosphere of the Faculty of Mathematics and Natural Sciences at the University of Bonn dated July 1, 2021
2. The Amendment to the Examination Regulations for the Consecutive Master's Degree Program Physics of the Earth and Atmosphere of the Faculty of Mathematics and Natural Sciences at the University of Bonn dated June 25, 2024

**Note:** This unofficial version is only provided for informational purposes. Only the regulations published in the Official Announcements of the University of Bonn shall be legally binding.

## Contents

(Note: the page numbers indicated refer to this unofficial version.)

Part 1 Scope	3
§ 1 Scope	3
Part 2 Program objective, degree and standard period of study	3
§ 2 Objective of the degree program and purpose of the examination	3
§ 3 Academic degree	4
§ 4 Standard period of study, ECTS credit point system, range of courses, program structure and language of instruction/examinations	4
Part 3 Admission requirements and recognition of academic achievements	5
§ 5 Degree program admission requirements	5
§ 6 Recognition of and granting credit for academic achievements	5
§ 7 Admission to individual courses	6
Part 4 Examination board and examiners	7
§ 8 Examination board	7
§ 9 Examiners, assistant examiners	8
Part 5 Scope, conduct, modalities and forms of examinations	9
§ 10 Scope of the master's examination	9
§ 11 Admission to module examinations	10
§ 12 Examination modalities and compulsory attendance	10
§ 13 Module examinations—registration and withdrawal	12
§ 14 Resitting examinations	12
§ 15 Written examinations	12
§ 16 Oral examinations	13
§ 17 Talks, seminar talks, presentations, reports, lab exercises, project reports, portfolios and term papers	13
§ 17a Digital examinations	15
§ 18 Accessibility accommodations	16
Part 6 Master's thesis	16
§ 19 Registration, topic and scope of the master's thesis	16
§ 20 Submission, evaluation and repetition of the master's thesis	17
Part 7 Procedural irregularities and protective regulations	18
§ 21 Cancellation, failure to appear, withdrawal and reprimand	18
§ 22 Deception and disruption of examinations	19
§ 23 Protective regulations	19
Part 8 Grading and final documentation	20
§ 24 Grading of examinations, grading system and pass requirements for the master's examination	20
§ 25 Certificate	21
§ 26 Master's diploma	21
§ 27 Diploma supplement	21
§ 28 Access to examination records	22
§ 29 Invalidity of the master's examination and revocation of the master's degree	22
§ 30 Additional examinations	22
Part 9 Entry into force	23
§ 31 Entry into force and publication	23

### Annexes:

1. Module structure
2. Regulations for admission to courses

Part 1  
Scope

**§ 1**  
**Scope**

(1) Students who commence their studies in the consecutive master's degree program Physics of the Earth and Atmosphere at the University of Bonn after entry into force of these Examination Regulations are subject to these Examination Regulations.

(2) The Examination Regulations of the Faculty of Mathematics and Natural Sciences at the University of Bonn for the Consecutive Master's Degree Program Physics of the Earth and Atmosphere of March 9, 2012 (Official Announcements, 42<sup>nd</sup> year, no. 10 of March 14, 2012), last amended by the Amendment to Examination Regulations for the Consecutive Master's Degree Program Physics of the Earth and Atmosphere of July 17, 2014 (Official Announcements, 44<sup>th</sup> year, no. 18 of July 18, 2014), in the following referred to as MPO 2012, expires at the end of the day on March 31, 2025. Examinations in accordance with MPO 2012 will be admissible until March 31, 2024. The examination board may extend this period by six months upon valid request.

(3) Students who, having commenced their studies prior to the coming into force of these Examination Regulations, are subject to MPO 2012 and have not yet completed all necessary examinations, may

- continue their studies under MPO 2012 until the deadline stated in paragraph 2; or
- irrevocably adopt these Examination Regulations by written request.

Students who continue their studies under MPO 2012 and do not graduate by March 31, 2024 shall adopt these Examination Regulations ex officio on March 31, 2024. Credit for prior academic achievements shall be granted. Paragraph 2, sentence 3 shall remain unaffected; these Examination Regulations shall then be adopted ex officio on September 30, 2024.

Part 2  
Program objective, degree and standard period of study

**§ 2**  
**Objective of the degree program and purpose of the examination**

(1) The consecutive master's degree program Physics of the Earth and Atmosphere offered by the Faculty of Mathematics and Natural Sciences in cooperation with the University of Cologne's Faculty of Mathematics and Natural Sciences is interdisciplinary and research-oriented.

(2) Students in this master's degree program are to acquire the necessary scientific knowledge, skills and methods as well as relevant key qualifications for an occupation in the field, enabling them to conduct sound research, to critically assess and practically apply research findings and methods as well as to act responsibly. This includes taking into account any changes and requirements in the working world or in cross-disciplinary aspects, if applicable. The program objectives mainly focus on

- building expert knowledge regarding current research by expanding the students' basic knowledge;
- building methodical and analytical competences, enabling students to expand their research findings on their own authority, with a strong emphasis on research methods and strategies.

(3) Students are to learn how to approach complex problems and work on their solution beyond the existing scope of knowledge, using research methods. The interdisciplinary nature of the master's degree program is to enable students to capture cross-disciplinary correlations as well as autonomously apply research methods and findings.

(4) The master's examination shall lead to conferral of a master's degree in Physics of the Earth and Atmosphere, qualifying the holder for positions demanding extensive skills in this field.

### **§ 3**

#### **Academic degree**

(1) Candidates who successfully complete the master's examination for the Physics of the Earth and Atmosphere degree program shall be awarded a Master of Science (MSc) degree by the University of Bonn Faculty of Mathematics and Natural Sciences.

(2) Based on the cooperation agreement with the University of Padua (Italy), a limited number of students have the opportunity to earn the academic degree *Laurea Magistrale* in the degree program Geophysics for Natural Risks and Resources from the University of Padua in addition to the academic degree Master of Science in the degree program Physics of the Earth and Atmosphere from the University of Bonn (double degree). To earn a double degree, University of Bonn students must complete at least 30 ECTS CP at the University of Padua. Applicants who would like to use this opportunity are subject to the acceptance conditions agreed on between the partner universities according to the cooperation agreement as amended. The cooperation agreement also sets down the modules that the Bonn students can take at the University of Padua as part of the double degree program. These regulations are published on the website of the master's degree program Physics of the Earth and Atmosphere. Studies at the University of Padua fall under the legal provisions valid there. After passing the master's examination, both universities confer their respective degree. Both degrees are awarded on separate documents that make reference to one another.

### **§ 4**

#### **Standard period of study, ECTS credit point system, range of courses, program structure and language of instruction/examinations**

(1) The standard period of study, including the master's thesis, is four semesters (120 ECTS CP) when pursuing the degree program full-time.

(2) The contents of the degree program are selected and limited in a manner that the master's examination can be completed within the standard period of study. They are organized in modules that, as a rule, consist of courses with a thematic, methodical or systematic connection.

(3) As a rule, each module is completed by passing a module examination, awarding credit points (CP) in accordance with the European Credit Transfer and Accumulation System (ECTS). One ECTS credit point is equivalent to a calculated student workload in contact hours and self-learning of 30 hours.

(4) The degree program includes 54 ECTS CP in compulsory modules, 36 ECTS CP in elective modules and 30 ECTS CP for the master's thesis. Details on electives, compulsory modules, admission to courses and the amount of credit points per module are set forth in the module structure (Annex 1).

(5) Students in the master's degree program choose either the Meteorology specialization or the Geophysics specialization. Students choose the specialization by selecting the compulsory modules pea710/pea810 (Meteorology specialization) or the compulsory modules pea720/pea820 (Geophysics specialization). Upon the student's request, the examination board can approve a change in the specialization.

(6) Students receive a curriculum as a recommendation on how to structure their course of studies. Students may receive an individual study schedule upon request.

(7) The language of instruction and examinations is English. The examination board may make exceptions for individual elective modules and shall announce them at the beginning of the semester pursuant to § 8,

paragraph 7. It is recommended that students are proficient in German at least at the B1 level of the Common European Framework of Reference for Languages (CEFR).

- (8) The degree program starts in the summer and winter semesters of each year.

### Part 3

#### Admission requirements and recognition of academic achievements

### § 5

#### Degree program admission requirements

- (1) The consecutive master's degree program Physics of the Earth and Atmosphere is open to applications from graduates from a university undergraduate degree program in physics of the earth and atmosphere or a related field.
- (2) The university degree in paragraph 1 must provide proof of the following qualifications
- knowledge of meteorology/geophysics; and
  - knowledge of mathematics and physics
- totaling 60 ECTS CP. 10 CP must have been completed in mathematics, 10 CP in physics and 20 CP in meteorology or geophysics. It is possible to submit proof that is equivalent to ECTS CP.
- (3) Students must have English skills at level B2 or higher according to the Common European Framework of Reference for Languages (CEFR) as proven by a recognized language certificate (e.g. TOEFL, IELTS) or equivalent proof. When enrolling, applicants do not need to show proof of German skills.
- (4) This does not affect admission restrictions due to capacity limits (*numerus clausus*).

### § 6

#### Recognition of and granting credit for academic achievements

- (1) Academic achievements in degree programs at other public or officially recognized universities, at public or officially recognized vocational academies, in degree programs at foreign public or officially recognized universities, or in another degree program at the University of Bonn will be recognized if the acquired skills are deemed equivalent to those that would have been acquired at the University of Bonn; an equivalency assessment is not performed. The examination board assigns credit points for these achievements to the corresponding modules defined in the curriculum. Enrollment may be denied to applicants who failed the final attempt at an examination that cannot be compensated for in a degree program with substantial similarities in content with the consecutive master's degree program Physics of the Earth and Atmosphere.
- (2) The question of recognition shall be reviewed with special regard to the significance of differences. In order to determine whether significant differences do or do not exist, the topic, scope and requirements of the academic achievement to be recognized are compared to the same aspects of the academic achievement that the former is to replace. This shall not be done by schematic comparison but rather in the form of an overall review and evaluation. A difference in the amount of awarded ECTS credit points alone does not constitute significant difference. The aforementioned regulations apply analogously to academic achievements in degree programs designed for continued education. Academic achievements are recognized to their full extent if significant differences cannot be determined. If the reviewers, in accordance with the principles described above, find that a certain academic achievement can only be recognized in part, credit points shall partially be assigned to the respective module. The respective module shall only be considered passed when all missing coursework and/or examinations are completed; only then shall ECTS credit points be awarded to the extent stipulated in these Regulations. The scope and nature of coursework and/or examinations to be completed are at the discretion of the examination board. Equivalence agreements

approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of the Federal Republic of Germany and the German Rectors' Conference as well as agreements under university partnerships shall be observed.

(3) In accordance with § 8, paragraph 4, sentence 2, the examination board has authority over the processes that underlie recognition of or granting credit for academic achievements. The examination board decides which degree programs are related to or show substantial similarities in content with the master's degree program Physics of the Earth and Atmosphere. Representatives of the relevant departments shall be consulted when reviewing the significance of differences. In case of doubts regarding whether academic achievements completed abroad should be recognized, the Central Office for Foreign Education (ZAB) may be consulted. Students shall be notified within 6 weeks of whether an academic achievement is recognized, including information on legal remedies available. If an achievement is not or only partially recognized, the examination board shall provide the reasons for its decision, thus bearing the burden of proof. If the examination board denies recognition, students may apply for an internal audit of the decision to be conducted by the Rectorate.

(4) If examinations are recognized, the same grades—provided grading systems are comparable—shall be added to the student's transcript of records and, weighted with the ECTS credit points of the module to which credit points are assigned, considered when calculating the overall grade. If study achievements are recognized, the entry "pass" shall be made in the student's certificate without assigning a grade. Should the grading systems not be comparable, the entry "pass" shall also be made in the student's certificate. Recognized academic achievements shall be identified as such in the student's certificate.

(5) If the requirements defined in paragraph 1 are met, students are legally entitled to have their academic achievements recognized. The student must provide all information on the academic achievement in question deemed necessary for recognition. Each semester, the examination board defines a deadline in that semester by which applications for recognition must be submitted. Applications submitted after that deadline cannot be processed until the subsequent semester.

(6) Applicants who, due to their performance in a placement test as per § 49, paragraph 12 of the Higher Education Act of North Rhine-Westphalia (*Hochschulgesetz*, HG), have earned the right to enter the degree program in a higher program-related semester will be granted credit for the knowledge and skills demonstrated in the placement test, with credit points being assigned to examinations that form part of the master's examination. The examination board is bound to the results of the placement test stated in the certificate.

(7) Upon request, up to 10% of the ECTS credit points to be earned pursuant to § 4, paragraph 1 can be granted towards this degree program for knowledge and qualifications acquired in a manner other than academic studies if the knowledge and qualifications are equivalent in terms of content and level to the academic achievements they are to replace.

## **§ 7**

### **Admission to individual courses**

(1) If admission to a course, due to its nature, purpose or to other reasons, needs to be limited and the number of applications exceeds the defined capacity, the lecturer may file a request with the examination board, or the officeholder in the faculty specified in the applicable examination regulations, to which the respective module is assigned to manage admissions to that course, giving due regard to § 59 HG. Criteria for admissions in these cases are stipulated in Annex 2 of these Examination Regulations.

(2) The officeholder per paragraph 1 determines the enrollment cap for courses subject to limited enrollment. The examination board announces the applicable enrollment caps at the start of each semester.

Part 4  
Examination board and examiners

**§ 8**  
**Examination board**

(1) The Faculty Council of the Faculty of Mathematics and Natural Sciences shall appoint a joint examination board for the bachelor's degree program Meteorology and Geophysics and the master's degree program Physics of the Earth and Atmosphere that is to organize examinations and perform the tasks assigned in these Examination Regulations. The dean shall ensure that the examination board is able to duly fulfill its tasks and does reliably do so. The dean shall give appropriate instructions and provide necessary administrative support.

- (2) The examination board shall consist of five voting members, including
- three members from the group of professors of the Faculty (including the chair and deputy chair);
  - one member from the group of academic staff of the Faculty; and
  - one member from the group of students of the Faculty.

The Faculty Council appoints the chair, deputy chair and other members separately by group. All professors who teach in one of the degree programs in paragraph 1, sentence 1 are eligible to become members of the examination board. From the group of academic staff, those who are teaching in one of the two degree programs, or are involved in the management of these degree programs, are eligible to become members. From the group of students, those enrolled in one of the two degree programs are eligible to become members. For each of the five members a deputy shall be appointed to represent the member in his or her absence; these deputy members may not assume the position of chair of the examination board. The term of office of members from the group of professors and from the group of academic staff is three years. The term of office of members from the group of students is one year. Members may be re-appointed.

(3) The examination board is an administrative body as defined by German administrative procedure law and the German administrative court procedure law.

(4) The examination board shall ensure compliance with the provisions of the Examination Regulations and make certain that the examination procedure is conducted in accordance with regulations. The examination board shall be responsible in particular for recognizing academic achievements as well as handling objections to decisions made within examination procedures. It shall report to the Faculty Council on a regular, at least annual basis on the development of examination and study periods, including the time taken to complete master's theses and the distribution of overall grades. Once a semester, the examination board shall inform the Student Registry on which students, according to final ruling by the examination board, have failed their final attempt at passing the master's examination in accordance with § 24, paragraph 6. The examination board shall provide input for amendments to the Examination Regulations and curriculum. The examination board may delegate clearly defined tasks to the chair. The following tasks cannot be delegated:

- Decisions on objections as per sentence 2
- Reviews of decisions on deception and disruption of examinations as per § 22, paragraph 1, sentences 1 and 2
- Assessments of whether a student repeatedly or otherwise seriously attempted to cheat as per § 22, paragraph 3
- Decisions on the invalidity of the master's examination and revocation of the master's degree as per § 29 and
- Mandatory reporting to the Faculty Council as per sentence 3

(5) Examination board meetings are not open to the public. All members of the examination board as well as their deputies shall be bound to confidentiality. Members who are not civil servants shall be bound to confidentiality by the chair of the examination board. Summary minutes shall be taken as record of the examination board's discussions and decisions.

(6) The examination board shall have a quorum when, in addition to the chair or their deputy, at least two more members or their deputies, including at least one member from the group of professors, are present. The examination board shall pass resolutions by simple majority. In the event of a tie vote, the chair's vote or, in case of his or her absence, the deputy chair's vote shall be the deciding vote. Members of the examination board have a right to attend examinations; they are to inform the chair of the examination board of their intention to attend an examination in advance.

(7) Directives, dates set and other communications of the examination board with public relevance shall be made available by public display or in electronic form with legally binding effect, giving due consideration to data protection requirements. Other additional publications are permissible but not legally binding.

(8) The examination board may hold its meetings in person, entirely by means of electronic communications as online video conferences (online meetings), or partially by means of electronic communications. The examination board chair may approve a request by a member to participate via videoconferencing technology if the meeting room meets the technical prerequisites for individual members to participate digitally in the meeting proceedings and resolution voting. The video conferencing technology used for online-only and hybrid meetings must be approved by the University of Bonn and provided by University IT, without exception.

(9) Examination board resolutions may be adopted by means of electronic communications. If resolutions are adopted in an online or in-person meeting using video conferencing technology, voting is conducted by show of hands or using an online voting tool approved by the University of Bonn. When secret ballot voting is conducted in an online meeting, an online voting tool must be used. An online voting tool may also be used in meetings that are held entirely or partially in-person. The examination board may also adopt resolutions by means of a circulation procedure if none of the members objects. With regard to quorum, the rules for adopting resolutions by means of electronic communications or circulation procedure are the same as those applicable to in-person meetings. In the case of resolutions by circulation procedure, a deadline must be set for responses. If the number of responses received from members by the deadline is less than the number of members required for a quorum, the resolution shall be deemed not to have been passed. If a member objects to the adoption of a resolution by circulation procedure before the deadline that was set for responses, the examination board chair must schedule an in-person or online meeting to adopt the resolution. For resolutions by circulation procedure, the chair shall send the members of the examination board a specific proposed resolution to be voted on by mail or email. The voting members of the examination board shall send their personally signed votes back to the chair of the examination board by mail or fax or as a scanned copy by email. The voting results for resolutions conducted in the forms specified in sentences 1 and 5 shall be included in the minutes. Sentence 11 does not apply to resolutions conducted by circulation procedure using an online voting tool provided by University IT and approved by the University of Bonn. In this case, a voting deadline must nevertheless be set and instructions on how to vote using the online voting tool shall be provided when the proposed resolution is sent.

(10) The examination board chair shall decide whether an examination board meeting takes place as an in-person or online meeting. The chair also decides whether resolution voting is conducted in person or by means of electronic communications or circulation procedure. This shall not affect paragraph 9, sentences 5 and 9. An examination board meeting must take place in person if requested by one-third of the members.

(11) The examination board may include examination office staff involved in the examination procedure for consultation on a regular basis or for individual meetings or agenda items. These staff shall have a right to speak but no right to vote.

## **§ 9**

### **Examiners, assistant examiners**

(1) The professors and assistant professors of the Faculty of Mathematics and Natural Sciences are examiners without express appointment of the examination board. This also applies to members with



postdoctoral qualification (*Habilitation*) in the department, contract lecturers, honorary professors, academic staff and lecturers with special responsibilities, provided that the person concerned has teaching responsibilities in the master's degree program Physics of the Earth and Atmosphere during the respective semester. All those holding a position named in sentences 1 and 2 can also act as assistant examiner. The examination board has the right to appoint additional examiners and assistant examiners in accordance with § 65 HG. As minimum requirement, assistant examiners must have passed the master's examination or an equivalent examination.

(2) Module examinations are usually held by the responsible teaching staff for that module. This also applies to any second examiners within the meaning of § 65, paragraph 2, sentence 1 HG. If the number of people teaching in a module is less than the number of examiners required for an examination, then the examination board appoints the additional examiners. If a teacher, due to illness or other important cause, is not able to hold module examinations in due time, the examination board shall be responsible for the appointment of another examiner for these module examinations.

(3) Examiners shall be independent of instructions in their conduct of examinations.

(4) Candidates may propose examiners for their master's thesis. A candidate's proposal should be followed whenever possible; however, it does not substantiate a claim.

(5) The examination board shall ensure that the candidate is informed of the names of the examiners in due time, as a rule at least two weeks before the date of the respective examination.

## Part 5

### Scope, conduct, modalities and forms of examinations

#### § 10

#### Scope of the master's examination

(1) The master's examination is intended as proof of qualification for positions demanding extensive skills in the respective field as well as in-depth and research-oriented scientific qualification.

(2) The master's examination consists of

1. module examinations completed during the course of studies and reflecting the contents and qualification targets of the modules specified in the module structure (Annex 1);
2. proof that the requirements in the module structure for acquiring ECTS credit points instead of a module examination are satisfied;
3. the master's thesis.

All examinations are to be completed within the standard period of study stipulated in § 4, paragraph 1.

(3) Examinations are completed during the course of studies. As a rule, one module examination is assigned to each module, even when a module consists of more than one course; the grade of the module examination will be indicated on the degree certificate. Students must successfully complete a module in order to be awarded the assigned credit points. A module is considered successfully completed once

- a. the assigned module examination or all of the assigned examination components of the module have been graded "sufficient" or higher; or
- b. proof has been provided that the requirements in the module structure for acquiring ECTS credit points instead of a module examination are satisfied.

(4) If a module consists of more than one course, with associated module examination components, the credit points will be awarded after the last module examination component has been passed.

(5) Examinations are generally held in the language of instruction. Upon request by the student and after consultation with the examiner(s), examinations or parts of examinations can also be taken in German. However, no right to take parts of the examination in this language exists.

## **§ 11**

### **Admission to module examinations**

- (1) The examination board may only admit students to module examinations who
  1. show proof that they are enrolled at the University of Bonn
    - a) as a student in the master's degree program Physics of the Earth and Atmosphere or in another degree program that imports the respective module according to that degree program's own regulations; or
    - b) as a cross-registered student according to § 52, paragraph 1 HG NRW;
  2. meet all requirements that may be stipulated in the module structure (Annex 1) for the respective module and module examination.
- (2) Admission to the module examinations is at the discretion of the examination board.
- (3) The examination board may only deny admission to the module examinations where
  1. the requirements specified in paragraph 1 are not met;
  2. the student has failed a final attempt at an examination that cannot be compensated for or failed the final attempt at the master's examination in this degree program or in a degree program with substantial similarities in content; or
  3. the student is registered for an examination procedure at another university in the chosen degree program or a degree program with substantial similarities in content as per § 6, paragraph 1, if failing the examination procedure would mean failing the final attempt at the master's examination.

## **§ 12**

### **Examination modalities and compulsory attendance**

- (1) Module examinations cover the contents and qualification targets of the modules specified in the module structure (Annex 1).
- (2) During module examinations the exam-taking student must be enrolled in this University of Bonn degree program or a University of Bonn degree program with "imported" modules per the Examination Regulations, or admitted as cross-registered students as defined under § 52, paragraph 1 HG.
- (3) In the module examinations, students are to demonstrate the knowledge and competences acquired in the respective module as well as their ability to understand the larger context. Module examinations can be completed by passing graded examination components. Module examinations and module examination components can be
  - written examinations;
  - oral examinations;
  - talks;
  - seminar talks;
  - presentations;
  - reports;
  - lab exercises;
  - project reports;
  - portfolios; and
  - term papers.

The type of examination and, if applicable, division into module examination components is stipulated in the module structure. Deviating from the specifications stipulated in the module structure is possible in accordance with § 15, paragraph 4 and § 16, paragraph 4; the examination board shall, in conjunction with

the examiners, determine the type of examination and, in accordance with § 8, paragraph 7, announce its decision in due time at the beginning of the semester.

(4) The module structure may stipulate that students must have completed certain assessments (coursework) prior to taking a module examination. Students who do not complete this required coursework shall not be admitted to the module examination. Upon request filed by the lecturer, the examination board shall, in accordance with § 8, paragraph 7, announce the specific requirements regarding such coursework at the beginning of the semester.

(5) Two examination dates shall be set for all written and oral module examinations. As a rule, the first examination date shall be set at the end of the lecture period in which the module or assigned course is completed. The second examination date shall be set in a manner that the degree program can be properly continued and completed within the standard period of study. The examination board shall announce all examination dates as well as the duration of individual examinations at the beginning of the semester pursuant to § 8, paragraph 7. Candidates who only take the examination at one of the two examination dates and do not pass the examination are not entitled to another examination date during the current semester.

(6) For courses in which achieving the learning objectives is not possible without active participation by the students, mandatory regular participation (compulsory attendance) may be stipulated per the module structure as prerequisite for registering for the examination and/or the awarding of ECTS credit points. In these courses, students are only permitted to miss a maximum of 25% of classes (including absences due to illness). For students verifiably responsible for caring for and raising children pursuant to § 25, paragraph 5 of the Federal Education and Training Assistance Act (*Bundesausbildungsförderungsgesetz*, BAföG), or for caring or providing for a spouse, registered partner, direct relative, second-degree indirect relative or first-degree in-law, § 18, sentence 5 applies accordingly.

(7) The following applies when grading examinations:

1. Examinations submitted in writing shall be graded by a minimum of one examiner. Candidates shall be informed of the result of such examinations within four weeks. In accordance with the applicable data protection regulations, results shall be made available by public display or in electronic form via the examination management system; as a rule, results are to be made available before the standard period of study ends.
2. Oral examinations are graded by one examiner in the presence of a competent assistant examiner. A record shall be kept of the essential topics and results of each examination. Candidates shall be informed of their grade immediately following the oral examination.
3. Notwithstanding numbers 1 and 2 above, resit examinations that, if failed, would mean failing the final attempt at the master's examination in accordance with § 24, paragraph 6, are to be graded by two examiners. In these cases the grade for the examination is calculated as the average of the scores assigned by the individual examiners.
4. Rules for grading the master's thesis are set forth in § 20, paragraphs 3 and 4.

(8) The respective examiners and the examination board may use anti-plagiarism software to check for plagiarism in examinations submitted in writing—this applies in particular to term papers and the final thesis (master's thesis). The processing of personal data outside of the University of Bonn is permissible in connection with the use of this software. Any data which could potentially identify the individual (student name, student ID number, etc.) must be removed before uploading an examination paper into the plagiarism software. The ability to internally reference an examination grade to the respective student must be ensured using other data, e.g. an assigned examination number. The plagiarism software used must fully erase checked examination papers once the check is completed; papers may not subsequently be used as training data.

### **§ 13**

#### **Module examinations—registration and withdrawal**

- (1) For each module examination, students shall electronically register with the examination board by the prescribed deadline. In justified cases, registrations may be submitted in writing.
- (2) The examination board shall make the examination dates as well as registration periods available by public display or in electronic form; registration deadlines are cutoff deadlines.
- (3) Candidates may withdraw from a written or oral examination without indicating reasons until one week before the examination date. Candidates may withdraw from term papers, project reports, presentations as well as seminar and other talks until one week before assignment of the topic. Candidates may withdraw from reports, lab exercises and portfolios until one week after the respective course has started. This shall not affect § 21, paragraph 3. The withdrawal can be submitted in electronic form or in writing. The date of receipt by the examination board determines whether the deadline has been met.
- (4) Rules for registration for the master's thesis are defined separately in § 19, paragraph 2.

### **§ 14**

#### **Resitting examinations**

- (1) Examinations that have been failed may only be repeated three times. Rules for repetition of the master's thesis are defined in § 20, paragraph 7.
- (2) Students who fail the same compulsory module four times lose their right to examination and are deregistered from the degree program by the Student Registry once the examination board's decision that the final attempt at the master's examination has been failed has come into force.
- (3) Students who fail the same elective module four times lose their right to examination in that module. Students who lose their right to examination in three elective modules are deregistered from the degree program by the Student Registry once the examination board's decision that the final attempt at the master's examination has been failed has come into force.
- (4) Module examinations graded "sufficient" or higher cannot be repeated. By way of derogation from sentence 1, students who have successfully completed a written or oral examination for a module at the first possible date for the module examination in accordance with § 12, paragraph 5 are, upon request, permitted to participate in the second examination date for the module examination according to § 12, paragraph 5, as well for the purpose of improving their grade; in this case, the better of the two grades is recorded.
- (5) In modules in which examinations spread over a whole semester or are assigned to a specific course, examinations cannot be repeated in that same semester. The module examination in such modules can only be repeated by retaking the entire module or course. Respective examinations and course work to be repeated are designated as such in the module structure.

### **§ 15**

#### **Written examinations**

- (1) In written examinations, students are to demonstrate that, within a specific period of time and with limited auxiliary means, they are capable of understanding a problem from the module's subject area and solving this problem using methods commonly used in that field. The examiners shall announce in a timely manner which auxiliary means may be used during a written examination.

(2) Written examinations may be handwritten or computer-aided examinations, both conducted under supervision. Computer-aided written examinations include in particular open question or cloze tasks that are completed using a computer.

(3) Written examinations shall last a minimum of 60 minutes and a maximum of 180 minutes. § 12, paragraph 7 applies accordingly. The examination board shall announce the specific date at the beginning of the semester, in accordance with § 8, paragraph 7.

(4) The examination board may, in conjunction with the examiner, decide that instead of a written examination, an oral examination shall be held that covers the module's subject area; this shall be announced in due time at the beginning of the semester pursuant to § 8, paragraph 7.

## **§ 16**

### **Oral examinations**

(1) In oral examinations, candidates are to demonstrate sound knowledge in the subject of examination, identify correlations and analyze specific questions arising from these as well as provide possible solutions.

(2) The minimum time per candidate and module examination is 20 minutes, the maximum time is 60 minutes. When candidates are examined in a group, each candidate within that group shall be examined for the same amount of time.

(3) Students who wish to take the same oral examination at a later date may be admitted to sit in on the examination, provided that spatial circumstances allow for it and no candidate objects to their presence. The decision shall be made by the examiners. Students sitting in on an examination shall attend neither the discussion nor the announcement of results. They shall also be prohibited from taking notes during the examination.

(4) The examination board may, in conjunction with the examiner, decide that, instead of an oral examination, a written examination shall be held that covers the module's subject area. This shall be announced in due time at the beginning of the semester pursuant to § 8, paragraph 7.

## **§ 17**

### **Talks, seminar talks, presentations, reports, lab exercises, project reports, portfolios and term papers**

(1) Talks are oral presentations that last a minimum of 20 and a maximum of 60 minutes, including a discussion, and are based on original scientific texts. In talks, candidates demonstrate their ability to comprehensibly present research results and explain them in a discussion. As a rule, talks are supplemented by a written research paper of 5 DIN A4 pages. Candidates shall have a minimum of 4 weeks to prepare an oral presentation and 6 weeks to prepare the research paper after receiving the topic. The research paper and oral presentation for a talk must, as a rule, be submitted or held, respectively, during the course of the semester in which the respective course is offered (by March 31 for courses in the winter semester and by September 30 for courses in the summer semester).

(2) Seminar talks are oral presentations that last a minimum of 20 and a maximum of 60 minutes, including a discussion. These talks are based on original scientific texts and individual research by the candidates. In seminar talks, candidates demonstrate their ability to comprehensibly present research results and explain them in a discussion. Seminar and other talks must be held in the semester in which the associated course is offered.

(3) Presentations are oral presentations that last a minimum of 20 and a maximum of 60 minutes; candidates demonstrate their ability to comprehensibly present and discuss their own documented research results raised using scientific methods. Candidates shall have four weeks to prepare a presentation after receiving the topic. Presentations must be held by the end of the semester in which the respective course is

offered (by March 31 for courses in the winter semester and by September 30 for courses in the summer semester).

(4) Reports are written summaries of individual scientific research, field trips or field exercises in which candidates comprehensibly present the sequence and results of their work, field trips or field exercises. Reports are based on notes, original scientific texts and individual research. Their layout, structure and scope (5–15 DIN A4 pages) shall reflect that of scientific publications. Candidates shall have four weeks to prepare a report after receiving the topic of the scientific research, field trip or field exercise. Reports must, as a rule, be prepared and submitted by the end of the semester in which the associated course is offered (by March 31 for courses in the winter semester and by September 30 for courses in the summer semester).

(5) Lab exercises are completed in a working group in a lab course. They are intended to provide an introduction to scientific work in the laboratory and expand a topic that has been introduced theoretically with additional content and practical experience. The results of the lab exercise shall be documented in accordance with certain provisions made by the examiner at the beginning of the semester. The examination shall be completed in the course of the semester.

(6) As a rule, project reports are used to show an ability to work in a team and, in particular, the ability to develop, implement and present concepts. Candidates are to demonstrate that they can define objectives and develop cross-disciplinary problem-solving approaches and concepts for a large/complex assignment. Candidates shall have 8 weeks to prepare a project report after receiving the topic. In the case of group project reports, it must be possible to clearly identify and grade the contribution of each individual candidate, and the contribution must satisfy the requirements in sentence 1. The presentation shall be a minimum of 20 and a maximum of 60 minutes long. When candidates are examined in a group, each candidate within that group shall be examined for the same amount of time. As a rule, project reports must be completed by the end of the semester in which the respective course is offered (by March 31 for courses in the winter semester and by September 30 for courses in the summer semester).

(7) Portfolios are collections of material with comments by the candidate and/or documentation related to internships, subject-related practical projects, tutoring and mentoring activities. The examiner shall specify the structure of the portfolio. As a rule, in addition to a collection of documents, the portfolio also includes an introduction and reflection. The scope of a portfolio can vary; all of the elements specified in the structure must be included. Portfolios must, as a rule, be submitted by the end of the semester in which the respective course is offered (by March 31 for courses in the winter semester and by September 30 for courses in the summer semester).

(8) For term papers, candidates are to demonstrate that they are able to perform independent research on a limited topic in one of the subject areas of the module using methods commonly used in that field and to present this in writing in a manner that satisfies scientific requirements. Each term paper shall contain a minimum of 5 and a maximum of 30 DIN A4 pages. A term paper must be completed within a minimum of 8 and a maximum of 12 weeks after being assigned the paper topic. As a rule, registration for a term paper, including topic specification, takes place in the semester in which the associated course is offered. The topic of the term paper must be issued in timely fashion, so that—depending on the semester of the examination registration—the latest deadline, as a rule, is March 31 in a winter semester and September 30 in a summer semester. The examiner determines whether the term paper is to be submitted in written and/or in digital form allowing electronic cross-checking.

(9) In exceptional cases the examination board may grant an extension for completing a report, project report, portfolio or term paper which represents an examination achievement by up to one quarter of the total allotted time for valid reasons, which include particularly illness resulting in the inability to participate in an examination. Candidates must apply with the examination board for an extension at least three days before the submission deadline, submitting proof of the reasons without delay. In cases of illness, candidates shall present a medical certificate proving their inability to participate in the examination. The examination board may, in individual cases, require the submission of a certificate from a doctor designated by the

University if there are sufficient factual indications that the candidate would in fact have been able to participate in the examination or, respectively, submit their assignment on time or if the examination board deems other proof than that defined by sentence 3 appropriate in that case. The examination board decides whether to extend a deadline based on the certificate presented. § 18 remains unaffected.

(10) Otherwise, the provisions for grading oral and written examinations stipulated in § 12, paragraph 7 apply accordingly.

### **§ 17a**

#### **Digital examinations**

(1) Written, as oral and practical module examinations may be conducted in digital form ("online examination" per § 64, paragraph 2, sentence 2 HG) when designated accordingly in the module plan.

(2) If a module examination per paragraph 1 is to be conducted in digital form, the examiner notifies students thereof at the start of the lecture period. If such notification is not possible in a given case, notification must be given no later than one week ahead of the examination date. The examiner notifies students no later than one week in advance of the digital examination regarding organizational matters pertinent to the examination and of technical requirements regarding the communication equipment to be used. Digital examinations may only be conducted using video conferencing services/online tools which have been approved or provided by the Rectorate.

(3) Digital written examinations are to be taken under video monitoring and within a specified time frame using electronic communication devices. During a digital written examination, students are required to activate the camera and microphone functions of the communication devices used for the examination (video monitoring). The use of virtual backgrounds is prohibited. Candidates must position the camera so that their face, upper body and hands are visible to the exam proctors at all times. Furthermore, video monitoring must be set up in such manner as to avoid impinging on the personal sphere of privacy of exam takers more than necessary for legitimate supervision purposes. Automated evaluation of image or sound data gathered during video monitoring does not take place. Recording the examination or otherwise saving image or sound data is prohibited.

(4) Oral and practical digital examinations are conducted in the form of a video conference. During a digital oral or practical examination, candidates are required to activate the camera and microphone functions of the device they are using. The use of virtual backgrounds is prohibited. Candidates must position the camera so that their face, upper body and hands are visible to the examiner at all times. The examiner or candidate are prohibited from recording the examination or otherwise saving image or sound data.

(5) The candidate's identity is verified (authentication) by presenting a valid official photo ID upon demand. The storage/saving of data processed for authentication purposes other than as technically necessary on a temporary basis is prohibited. Temporarily saved/cached personal data must be promptly erased.

(6) If in a digital written examination the transmission or processing of an examination question/task, the transmission of the examination element itself or video monitoring are not technically functioning at the time of the examination, the examination is to be terminated at the stage in question and the examination is not graded.

(7) If video or sound transmission is temporarily disrupted during an oral or practical examination held in digital form, the examination is to be continued when the disruption is resolved. If technical errors remain unresolved so that the oral or practical examination cannot be properly continued, the examination is terminated to be repeated at a later date.

(8) The candidate must report immediately any technical malfunctions occurring during a digital examination for mandatory documentation by the proctor/invigilator or examiner. If a digitally held examination is terminated due to technical problems, this is not recorded as an examination attempt by the students. The above does not apply to a candidate if it is proven that they were responsible for the disruption.

(9) Personal data required for conducting a digital examination may be processed by the examiners, the examination board and the providers of the video conferencing services/online tools utilized as necessary for conducting such. If the purpose of processing no longer applies, collected data are to be erased unless their continued storage is allowed under applicable retention regulations.

(10) The Personal Data Protection Act (*Datenschutzgesetz Nordrhein-Westfalen*, DSG NRW) and the EU General Data Protection Regulation (EU GDPR) as amended remain unaffected. Individuals whose personal data is processed have rights of information, rectification, erasure, restriction of processing, data transfer, objection and complaint in accordance with Articles 15 to 18, 20 to 23 and Article 77 EU GDPR. The responsible supervisory authority for complaints is the North Rhine-Westphalia State Commissioner for Data Protection and Freedom of Information (*Landesbeauftragte für Datenschutz und Informationsfreiheit Nordrhein-Westfalen*, LDI NRW). The contact data for the University of Bonn data protection officer can be found at [https://www.uni-bonn.de/en/data-protection-policy?set\\_language=en](https://www.uni-bonn.de/en/data-protection-policy?set_language=en).

## **§ 18**

### **Accessibility accommodations**

Students who are unable to take an examination in the designated manner due to a disability or chronic illness, or due to maternity law provisions, can submit a request for accessibility accommodations to the examination board together with suitable proof; the same shall apply to the completion of coursework as specified in § 12, paragraph 4. Accessibility accommodations are approved on a case-by-case basis. They can, in particular, provide for differences with respect to how the examination is taken, the length of the examination and the use of aids or support persons. For students with disabilities or chronic illnesses, the entitlement to accessibility accommodations shall extend to all of the examinations to be taken during the degree program, provided no change is expected in the illness or disability; sentence 2 remains unaffected. In the case of compulsory attendance courses and compulsory practical courses, internships and study periods abroad that cannot be completed due to the impairment, even with the support of the university, alternative forms of assessment that can provide equivalent competence and qualifications shall be permitted.

## **Part 6**

### **Master's thesis**

## **§ 19**

### **Registration, topic and scope of the master's thesis**

(1) The master's thesis is an examination in the form of a written assignment in which candidates are to demonstrate their ability to conduct research on, develop a solution for and appropriately present a problem from the field of the master's degree program Physics of the Earth and Atmosphere within a specified period of time, independently and using scientific methods.

(2) Students must register their master's thesis with the examination board. In justified cases, registrations may be submitted electronically. The examination board announces the deadline for registration of master's theses required in order to complete the master's degree program within the standard period of study.

(3) When registering their master's thesis, students must indicate their choice of examiner for the master's thesis.



- (4) Any examiner may assign the topic for the master's thesis in accordance with § 9, paragraph 1. As a rule, the examiner who assigned the topic also acts as supervisor of the master's thesis.
- (5) The topic for the master's thesis shall only be issued when the candidate meets all requirements for the master's thesis as stipulated in the module structure (Annex 1). The examination board shall assign the topic for the master's thesis. A record shall be kept of the topic and the date of issue. Prior to registration of the master's thesis, students shall be given the opportunity to submit proposals for the research area from which the topic of their master's thesis shall be taken; they shall not, however, have the right to a topic from a specific area. Upon request by the student, the examination board shall ensure that the student receives a topic for their master's thesis in due time as per paragraph 9.
- (6) Candidates may reject a master's thesis topic only once and only within the first two months after its issue. Rejecting a topic does not count as a failed attempt. The new topic issued to the candidate must be substantially different from the initial topic.
- (7) The master's thesis can also be approved in the form of a group thesis. In this case, it must be possible to clearly distinguish and evaluate the contribution of the individual candidate based on a specification of sections, page numbers or other objective criteria that allow the candidate's portion to be unambiguously identified. The requirements in paragraph 1 must also be satisfied.
- (8) The master's thesis shall contain a minimum of 30 and a maximum of 150 DIN A4 pages of text. For a group thesis, the text portion to be written by each candidate must be a minimum 30 and a maximum 100 DIN A4 pages in length.
- (9) Passing the master's thesis awards 30 ECTS CP, corresponding to 900 hours in student workload. The master's thesis shall be completed within a maximum period of 6 months. The examination board shall determine the deadline by which the master's thesis must be submitted and notify the student of that deadline. Topic, task and scope of the master's thesis shall be limited in a way that candidates may complete it under reasonable requirements within the specified period. Upon valid request and in conjunction with the supervisor, the examination board may grant an extension by a maximum of six weeks. As a rule, the topic of the master's thesis is issued during the third semester.

## **§ 20**

### **Submission, evaluation and repetition of the master's thesis**

- (1) Candidates shall submit their master's thesis in triplicate to the examination board (in both print and a digital format suitable for electronic evaluation); a record shall be made of the time and date of submission. Candidates may not withdraw an already submitted master's thesis. Master's theses that are not submitted by the stated deadline shall be graded "insufficient."
- (2) Candidates shall declare in writing when submitting their master's thesis that the thesis—in the case of a group thesis, their appropriately labeled portion of the thesis—is their own work, that they used only those sources and resources cited in the thesis and that they have marked citations as such.
- (3) Master's theses shall be evaluated and graded by two examiners. One of the examiners shall be the person who assigned the topic of the master's thesis; the second examiner shall be appointed by the examination board from among the group of examiners as defined by § 9, paragraph 1. It must be ensured that at least one of the examiners is a member of the group of professors (*Hochschullehrer\*innen*) or *Privatdozent\*innen* at the University of Bonn. The candidate shall be entitled to propose examiners but shall not have a right to be assigned a specific examiner.
- (4) The examiners shall each grade the master's thesis separately and provide the reasons for the grade they assigned in writing in accordance with § 24, paragraph 1. If the difference between the grades is less than 2.0, the grade for the master's thesis shall be calculated as the average of the individual grades. When

the difference is 2.0 or more or if even one of the grades is "insufficient," the examination board shall appoint a third examiner for review of the master's thesis. In this case the overall thesis grade is calculated as the average of the two best individual grades given. Grades shall be averaged in accordance with § 24, paragraph 2. A master's thesis may, however, only be awarded the grade "sufficient" or higher when at least two of the individual grades were "sufficient" or higher. If the master's thesis was prepared by multiple students as a group thesis, the portions of the overall thesis independently prepared by each individual student must be graded individually.

(5) The candidate is to be informed of the grade for the master's thesis within eight weeks of the submission deadline.

(6) Candidates who receive a grade of "sufficient" or higher for their master's thesis are awarded 30 ECTS CP.

(7) Master's theses graded "insufficient" may be repeated once. The topic of the second master's thesis may be chosen from the same area as the topic of the first master's thesis, but must be substantially different in nature. The candidate may reject the proposed topic for their master's thesis within the period specified in § 19, paragraph 6 only if they did not make use of this option with their first master's thesis. Should the second thesis also be graded "insufficient," the candidate shall have failed the final attempt at the master's examination, losing their right to examination and being deregistered from the degree program by the Student Registry once the examination board's decision has come into force.

#### Part 7

#### Procedural irregularities and protective regulations

#### § 21

#### **Cancellation, failure to appear, withdrawal and reprimand**

(1) Candidates may electronically cancel their registration for module examinations with the examination board before the deadlines indicated in § 13, paragraph 3; if this is not possible, cancellation can also be submitted in writing. The date of receipt by the examination board determines whether the deadline has been met.

(2) If a candidate withdraws from an examination after the cancellation deadline without good cause, the examination is graded "insufficient." The same applies when a candidate fails to appear for an examination or to submit an assignment within the specified period of time (failure to appear).

(3) Candidates who have registered for an examination but have good cause to withdraw from that examination, especially due to illness resulting in an inability to participate in the examination, may do so regardless of the cancellation deadline. The examination board shall be notified of such withdrawals immediately and in writing. Candidates shall immediately provide a written statement credibly substantiating the grounds for their withdrawal or failure to appear. In cases of illness, candidates shall present a medical certificate proving their inability to participate in the examination. Candidates who withdraw from a written examination due to illness after the start of the examination and assignment of the respective task must consult a medical examiner that same day of the examination to obtain a certificate proving their inability to continue the examination. As a rule, it is not possible to withdraw from an examination after the start of the examination, especially when the candidate has already seen, or otherwise obtained knowledge of, the examination result. The examination board may, in individual cases, require the submission of a certificate from a doctor designated by the University if there are sufficient factual indications that the candidate would in fact have been able to participate in the examination or, respectively, submit their assignment on time or if the examination board deems other proof than that defined by sentence 4 appropriate in that case. If the examination board accepts a medical certificate allowing for withdrawal due to illness or other good cause given by the candidate, the examination attempt shall be deemed void.

(4) Candidates shall immediately reprimand any deficiencies related to an examination with the respective examiner or proctor. The reprimand shall be entered into the record and asserted in front of the examination board. If the examination board accepts the reprimand, the examination attempt shall be deemed void.

## **§ 22**

### **Deception and disruption of examinations**

(1) Candidates who try to influence the outcome of an examination through deception or the use of inadmissible auxiliary means shall receive the grade "insufficient"; the respective examiner or proctor shall identify deception or use of inadmissible auxiliary means, include it in the record and notify the examination board. The respective examiner or proctor may bar any candidate from continuing an examination who, despite a warning, disrupts the orderly conduct of the examination; in such cases, the examination shall be graded "insufficient." A record shall be made of the reasons for barring the candidate from the examination.

(2) Candidates may, within a period of two weeks, request that decisions taken in accordance with paragraph 1, sentences 1 and 2 be reviewed by the examination board.

(3) The examination board shall determine whether the candidate's attempt at deception was repeated or otherwise serious. After hearing the candidate, in such cases the examination board can decide whether the candidate loses his or her right to examination in this degree program. The student will be deregistered by the Student Registry once the examination board's decision on the loss of the right to examination has come into force.

(4) Violating the provisions in these Examination Regulations regarding deception in examinations is an administrative offense. This administrative offense may be subject to a fine of up to EUR 50,000. As the competent administrative authority, the Provost of the University of Bonn shall pursue and fine administrative offenses pursuant to sentence 1.

## **§ 23**

### **Protective regulations**

(1) Regulations on maternity leave stipulated in the Maternity Protection Act (*Mutterschutzgesetz, MuSchG*) as amended shall be respected; students shall provide all necessary proof. All time frames stipulated in these Examination Regulations shall be suspended by maternity leave; time frames for periods of assessment shall not include periods of maternity leave. The examination board shall notify the student of newly determined examination deadlines once all necessary proof has been submitted.

(2) Allowances shall likewise be made on application for parental leave under the Parental Allowance and Parental Leave Act (*Gesetz zum Elterngeld und zur Elternzeit, BEEG*) as amended. Candidates shall notify the examination board in writing of the period(s) during which they wish to take parental leave, enclosing necessary substantiating documentation, at least four weeks prior to the date on which they wish to enter parental leave. The examination board shall determine whether the statutory requirements have been met which would lead to an employee being entitled to parental leave under the BEEG and shall inform the candidate immediately of its findings and, if applicable, any new examination deadlines. Time frames for the completion of assignments may not be interrupted by a period of parental leave. The assignment topics shall be deemed not issued. The candidate shall receive a new topic at the end of their parental leave. This does not affect § 21, paragraph 3, sentence 1.

(3) Allowances shall likewise be made on application for leave taken for the care of spouses, registered partners, direct relatives, second-degree indirect relatives or first-degree in-laws who are in need of care. The examination board shall review whether the requirements defined by sentence 1 are met. The application is to be submitted as soon as these requirements are met. Relevant documentation shall be attached to the application. The examination board shall immediately notify the candidate of the result and, if applicable, of the new examination deadlines. Time frames for the completion of assignments may not be

extended based on such leave taken. The examination topics shall be deemed not issued. The candidate shall receive a new topic at the end of their leave. This does not affect § 21, paragraph 3, sentence 1.

Part 8  
Grading and final documentation

**§ 24**

**Grading of examinations, grading system and pass requirements for the master's examination**

(1) The grade for each examination shall be determined by the respective examiners. If the examination is conducted by more than one examiner, the grade shall be calculated using the average of the individual grades. This shall not affect § 12, paragraph 7. The following grading system shall be used:

1	very good	excellent achievement
2	good	achievement well above average requirements
3	satisfactory	achievement corresponding to average requirements
4	sufficient	achievement that still meets necessary requirements despite deficiencies
5	insufficient	achievement that does not satisfy requirements due to substantial deficiencies

In order to produce a graduated grading scale and provide a more nuanced evaluation, individual grades may be raised or lowered by values of 0.3; grades 0.7, 4.3, 4.7 and 5.3 shall not be admissible. An examination is passed if it is graded "sufficient" or higher; otherwise it is failed.

(2) Only the first decimal place after the decimal shall be used when calculating the grades for individual modules or for overall performance; all further decimal places shall be dropped without rounding off.

(3) A module examination shall be deemed passed when the module is graded at least "sufficient." If a module grade includes more than one examination component, it shall be calculated using the individual examination weights indicated in the module structure. This does not affect § 10, paragraph 3, sentence 4. The grading scale for modules is:

With an average grade up to and including 1.5	= very good
With an average grade from 1.6 up to and including 2.5	= good
With an average grade from 2.6 up to and including 3.5	= satisfactory
With an average grade from 3.6 up to and including 4.0	= sufficient
With an average of 4.1 or higher	= insufficient

(4) Candidates shall have passed the master's examination when they have passed all necessary modules as per § 4, paragraph 4 as well as the master's thesis and have thus been awarded a total of 120 ECTS CP.

(5) The calculation of the overall grade shall include all graded modules. Each grade from individual modules shall be weighted by multiplying it with the number of ECTS credit points assigned to the respective module. The sum of these weighted module grades is then divided by the total number of ECTS credit points (weighted average). Paragraph 3, sentence 4 applies accordingly. By way of derogation, the overall grade is "excellent" if the calculated overall grade is no worse than 1.3 and the master's thesis was graded "very good" (1.0). Modules marked "passed" due to lack of comparability between grading systems shall not be included when calculating the overall grade.

(6) The master's examination shall be deemed failed at the final attempt  
- if the student fails to pass an examination for a compulsory module four times in accordance with § 10, paragraph 3, sentence 4, letter a or in accordance with § 14, paragraph 2;

- if the candidate has, in accordance with § 14, paragraph 3, lost their right to examination in three elective modules; or
- if the master's thesis has been graded "insufficient" in the second attempt.

## **§ 25**

### **Certificate**

(1) The candidate shall be notified of the results of their successful master's examination in a provisional certificate as soon as all grades have been submitted. A certificate shall thereafter be issued in German and English. Candidates may also receive an English translation of their certificate on application. The certificate shall include the following information:

- All modules for which ECTS credit points were earned
- The semester in which ECTS credit points were earned
- All grades from individual modules
- The topic and grade of the master's thesis
- The date of the last examination
- The overall grade for the master's examination

On application by the candidate, results from additional examinations as per § 30 may also be included in the certificate; these shall not be included when calculating the overall grade.

(2) The certificate shall state the date of issue. The certificate shall be stamped with the seal of the examination board and signed by the chair of the examination board.

(3) Candidates who have failed their final attempt at the master's examination shall be issued a written notification thereof by the examination board, including information on legal remedies available.

(4) Students who leave the University without acquiring a degree can, after deregistering, receive by request a transcript stating all completed coursework and examinations. This transcript only states the successfully completed courses and degree program elements. In addition, a notification may be issued on application that indicates which examinations the student did not pass or still needs to complete in order to pass the master's examination.

## **§ 26**

### **Master's diploma**

Along with the certificate for the master's examination, candidates shall receive a master's diploma issued the same day in English and German stating that the candidate has been awarded the academic degree as per § 3. The master's diploma will be accompanied by an English translation. Master's Diplomas shall be signed by the Dean of the Faculty of Mathematics and Natural Sciences at the University of Bonn and by the chair of the examination board as well as stamped with the seal of the Faculty.

## **§ 27**

### **Diploma supplement**

The master's diploma shall be augmented by a diploma supplement. The diploma supplement is a standard document in English and German that shall include the following information:

Essential contents of the program underlying the degree

- The course of studies
- The competences acquired with the degree
- Information on the accreditation of the degree program
- Information on the university awarding the degree

The diploma supplement shall give a relative classification of the overall grade of the master's examination on the ECTS grading scale.

## **§ 28**

### **Access to examination records**

- (1) Candidates shall, on application, be granted access to their examinations, the examiners' written reviews as well as records of oral examinations; applications must be submitted within three months after notification of the examination result. This does not affect § 29 of the Administrative Procedure Act (*Verwaltungsverfahrensgesetz, VwVfG*).
- (2) On written application within three months after the examination board has issued the certificate as per § 25, the examination board shall grant candidates access to their examination records. This does not affect § 29 of the VwVfG.
- (3) The examination board shall determine when and where the examination records may be accessed and notify the candidate of this in due time. The examination board shall determine the details concerning the possibility of preparing copies or other true reproductions, and shall announce them in accordance with § 8, paragraph 7. Copies and other reproductions of examination records or parts of the records are only intended for candidates to pursue their own rights arising under the legal examination relationship and are therefore only to be used by the candidates, or made available to persons engaged by the candidates to safeguard their legal interests. Any other duplication or distribution of copies or other reproductions is not permitted.

## **§ 29**

### **Invalidity of the master's examination and revocation of the master's degree**

- (1) Should it become known after the certificate has been issued that the candidate used deception in an examination, the examination board may correspondingly correct the grades for those examinations in which the candidate used deception as well as the overall grade and declare the examination or parts of the examination failed.
- (2) Should it become known after the certificate has been issued that the candidate had not met the requirements for admission to an examination, and should this have happened without any fraudulent intent on the part of the candidate, this defect shall be remedied by the candidate's successful completion of the examination. Should the candidate have wrongfully secured admission with intent, the examination board shall decide on the legal consequences in accordance with the VwVfG.
- (3) Candidates shall be heard before the examination board makes a decision.
- (4) The incorrect certificate shall be withdrawn and, where applicable, a new certificate shall be issued. If one or more examinations are declared failed due to deception, the incorrect certificate also makes the master's diploma and all other graduation documentation void. Decisions in accordance with paragraph 1 and paragraph 2, sentence 2 may be made only for a period of five years after the certificate has been issued.
- (5) Should the master's examination be deemed altogether failed, the master's degree shall be revoked and the master's certificate, master's diploma as well as all other graduation documentation shall be withdrawn.

## **§ 30**

### **Additional examinations**

Students may, until the end of the semester in which they complete the master examination as per § 10, paragraph 2, extend their standard scope of studies on application by up to 24 ECTS CP in additional modules. These may be modules from this master's degree program as well as other modules for which credit would otherwise not be granted, provided that they are offered at the University of Bonn and are eligible as additional modules for this master's degree program. Credit can only be granted for modules that are

completed within one and a half times the standard period of study. Upon request, the examination board can decide on exceptions. The results of additional examinations shall be included in the certificate in accordance with § 25 on application by the candidate, however, it shall not be included when calculating the overall grade.

Part 9  
Entry into force

**§ 31**  
**Entry into force and publication**

These Examination Regulations shall enter into force on the day after their publication in the Official Announcements of the University of Bonn.

Unofficial version

# **Annex 1: Module structure for the consecutive master's degree program Physics of the Earth and Atmosphere**

## **Module structure key:**

- Abbreviations of course types: FE = field exercise, S = seminar, E = exercise, L = lecture.
- Marked with asterisk (\*): courses that require compulsory attendance as a prerequisite for participation in the module examination in accordance with § 12, paragraph 6. In these cases, compulsory attendance is an additional requirement to other listed assessments.
- The Course Type column shows the type of a course within the module.
- The Duration/Program-Related Semester column shows the duration (D) of the module (in semesters) and assigns it to a program-related semester (PRS).
- The Coursework column shows requirements that must be met for admission to certain examinations pursuant to § 12, paragraph 4 or, respectively, to acquire credit points in modules without an examination. Coursework that is required for admission to certain examinations and must be repeated in case that examination is failed is marked with the letter "r" (r).
- In the Type of Examination column, examinations as defined by § 14, paragraph 5 that cannot be repeated within one semester but must rather be repeated along with the entire module or, respectively, the corresponding course are marked with the letter "r" (r). Examinations which can be taken in digital form in accordance with § 17a, paragraph 1 are marked with the letter "d" (d).

The examination board shall make further details on individual modules, especially regarding the courses offered within or required for completion of a module, available in a module guide at the beginning of the respective semester pursuant to § 8, paragraph 7.

## **Compulsory Modules (54 CP+30 CP)**

Module Code	Module Name	Course Type	Participation Requirements	Duration/ Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
pea700	Prognostic Modelling	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Principles of numerical modeling in atmosphere and solid Earth	Successful completion of exercises / assignments	Project report	6
pea710	Atmospheric Dynamics (Compulsory module for Meteorology specialization)	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Atmospheric dynamics of the middle latitudes	None	Oral examination <sup>d</sup>	6



Module Code	Module Name	Course Type	Participation Requirements	Duration/ Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
pea720	Physics of Porous Media (Compulsory module for Geophysics specialization)	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Petrophysics and transport processes	Successful completion of exercises / assignments	Written examination	6
pea800	Inverse Modeling	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Principles of data-based modeling in atmosphere and solid Earth	Successful completion of exercises / assignments	Written examination	6
pea810	General Hydrodynamics (Compulsory module for Meteorology specialization)	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Processes of general physical hydrodynamics	None	Written examination	6
pea820	Geodynamics (Compulsory module for Geophysics specialization)	L / E / S*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Geodynamic processes and models	None	Written examination <sup>d</sup> (4/6) Seminar talk <sup>d</sup> (2/6)	6
pea950	Research Skills and Expertise	S	None	D: 1 PRS: 3 <sup>rd</sup>	Specialized research skills for working on the master's thesis in Meteorology or Geophysics	None	Presentation <sup>r</sup>	15
pea960	Research Methods and Project Planning	S	None	D: 1 PRS: 3 <sup>rd</sup>	Methodological skills and project planning for working on the master's thesis in Meteorology or Geophysics	Creation of a project plan	Presentation <sup>r</sup>	15

Module Code	Module Name	Course Type	Participation Requirements	Duration/ Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
pea970	Master's Thesis		60 ECTS CP from the master's degree program  Completion of pea950 and pea960	D: 1 PRS: 4 <sup>th</sup>	Students will independently conduct and document a meteorological or geophysical research project.  Qualification objective: Students are able to carry out a research project with guidance and document it in writing and orally. The module includes a presentation of the student's own results as part of the working group.	None	Master's thesis with ungraded final colloquium	30

## Elective Modules (36 CP)

### I. Specialization elective modules (24–36 CP)

In each of the first two semesters, between 2 and 3 modules are to be selected from the modules listed below. The modules pea710, pea720, pea810 and pea820 can be chosen as elective modules if they are not already compulsory modules in the specialization the student has chosen.

Alternatively, the elective modules from the specialization in the University of Cologne's degree program Physics of the Earth and Atmosphere may be chosen (cooperation agreement). The modules that can be selected are announced by the examination board in accordance with § 8, paragraph 7.

Elective modules that were already completed as part of the bachelor's degree program Meteorology and Geophysics can no longer be taken in the master's degree program.

Module Code	Module Name	Course Type	Participation Requirements	Duration/ Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
pea731	Statistical Data Analysis in Geosciences	L / E*	mug450 from the bachelor's degree program Meteorology and Geophysics is recommended	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Statistical methods in geosciences	Successful completion of exercises / assignments	Oral examination <sup>d</sup>	6
pea732	Climate Dynamics	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Understanding physical aspects of important climate processes	Successful completion of exercises / assignments	Oral examination <sup>d</sup>	6
pea733	Land Surface Processes	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Independent application of an advanced land-surface model and evaluation of simulation results based on various parameter uncertainties	None	Term paper	6

Module Code	Module Name	Course Type	Participation Requirements	Duration/ Program-Related Semester	Subject (Content) of Examination and Qualification Objective	Coursework	Type of Examination	ECTS CP
pea734	Tectonophysics	L / E / S*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Physics, processes and phenomena of the lithosphere	None	Project report	6
pea735	Electrical Imaging	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Imaging processes for evaluating geoelectric data	Successful completion of exercises / assignments	Oral examination <sup>d</sup>	6
pea831	Theoretical Synoptics	L / E*	mug410 from the bachelor's degree program Meteorology and Geophysics is recommended	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Theoretical aspects of complex synoptics	Successful completion of exercises / assignments	Written examination	6
pea832	Radar Polarimetry	L / E*	None	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Theoretical and applied radar polarimetry	Successful completion of exercises / assignments	Term paper	6
pea833	Hydrogeophysics	L / E* / FE*	pea720 recommended	D: 1 PRS: 1 <sup>st</sup> or 2 <sup>nd</sup>	Measurement methods and strategies in hydrogeophysics, handling equipment in the field	None	Project report	6

The examination board may approve further elective modules and shall announce them at the beginning of the semester pursuant to § 8, paragraph 7.

## **II. Elective modules from related degree programs (0–12 CP)**

After submitting a request and having it approved by the examination board, students can take modules totaling up to 12 CP from other related degree programs as elective modules. These modules are governed by the legally binding examination regulations for the exporting master's degree program in place at the time of registration for the module examination, as amended.

## **Annex 2: Regulations for admission to courses**

If admission to a course, due to its nature, purpose or to other reasons, needs to be limited and the number of registrations exceeds the defined capacities, it is handled as follows:

Applicants shall be admitted in the following order:

- **Group 1:**  
Students who are enrolled at the University of Bonn, for whom, according to the curriculum, participation in this course is mandatory and who are in the same or a higher program-related semester as/than the one specified for participation in the curriculum, provided they
  - a. were kept from registering for the course due to a delay in the first semester; or
  - b. were not selected in a random selection procedure at least once in the past
- **Group 2:**  
Students who are enrolled at the University of Bonn and who are in the same or a higher program-related semester as/than the one specified for participation in the curriculum, and who do not belong to Group 1
- **Group 3:**  
All other students enrolled at the University of Bonn who are eligible for participation in this course pursuant to the curriculum
- **Group 4:**  
All other students

This does not affect further admission requirements. Within the groups—except Group 4—students who have collected the largest number of credit points for this degree program or for another degree program at the University of Bonn that imports modules from this degree program shall have priority. Remaining places are allocated by drawing lots.