

This is an English translation of the original and signed “Studienplan für das Spezialisierte Master-Studienprogramm und das Doktoratsprogramm in Climate Sciences” issued in German. The German version is legally valid.

Study Plan for the Specialist Master’s Degree Program and the Doctorate Program in Climate Sciences

dated November 8, 2018

The Faculty of Science is,

based on Article 44 of the statute of the University of Bern dated June 7, 2011 (University Statute, *UniSt*), on the regulation regarding courses of study and assessment in the Faculty of Science dated May 24, 2018 (study regulations for the Faculty of Science, [*RSL Phil.-nat. 18*]), the doctoral program regulations of the Faculty of Science of the University of Bern dated May 23, 2019 (*PromR Phil.-nat. 19*), the regulatory framework for the Oeschger Centre for Climate Change Research (OCCR) issued by the Executive Board of the University of Bern on September 20, 2007 and the agreement between the University of Bern and the ETH Zürich concerning mutual access to the range of courses on offer in Master’s courses in the field of Atmospheric and Climate Sciences dated March, 2012,

issuing the following study plan:

I. General

SCOPE	Art. 1 This study plan applies to all students studying Climate Sciences at the Faculty of Science (Faculty) or are gaining benefits from Climate Sciences in the context of another program of studies.
PROGRAM OF STUDIES	Art. 2 ¹ The Graduate School of Climate Sciences offers the following programs: <ul style="list-style-type: none">a Specialized Master’s Degree program in Climate Sciences (mono 120 ECTS credits) andb Doctoral program in Climate Sciences.
TITLE	Art. 3 ¹ The following titles can be acquired. <ul style="list-style-type: none">a Master of Science in Climate Sciences, University of Bern (MSc), with an optional focus on one of the following:<ul style="list-style-type: none">– Master of Science in Climate Sciences with special qualification in Climate and Earth System Science, University of Bern,

- Master of Science in Climate Sciences with special qualification in Atmospheric Science, University of Bern,
- Master of Science in Climate Sciences with special qualification in Ecology and Agricultural Sciences, University of Bern,
- Master of Science in Climate Sciences with special qualification in Climate and Environmental Economics, University of Bern,
- Master of Science in Climate Sciences with special qualification in Social Sciences, University of Bern,
- Master of Science in Climate Sciences with special qualification in Humanities, University of Bern.

b PhD in Climate Sciences, University of Bern

ECTS CREDITS AND
LEARNING OUTCOMES

Art. 4 The number of ECTS credits and the learning outcomes for individual courses are defined in the electronic course directory.

ASSESSMENTS

Art. 5 ¹ The type of assessment (e.g. written or oral exam) is specified in the electronic course directory. The timing and terms of the assessment are determined and announced by the lecturers.

² The duration of oral examinations is regulated by article 22, paragraph 4 of *RSL Phil.-nat. 18*, and the duration of written examinations is regulated by article 23, paragraph 1 of *RSL Phil.-nat. 18*. Further details can be found in the annexes.

³ The people responsible for examinations are to record the results of the written assessments within a period of one month (article 23, para. 2 of *RSL Phil.-nat. 18*).

⁴ The requirements for participating in assessments are specified in the electronic course directory.

⁵ Articles 20 to 40 of *RSL Phil.-nat. 18* shall apply otherwise.

GRADING

Art. 6 ¹ Article 34 of *RSL Phil.-nat. 18* shall apply for grading.

² Unmarked assessments shall be graded in accordance with article 34, paragraph 2 of *RSL Phil.-nat. 18*.

³ The electronic course directory regulates which assessments are marked.

REPETITION AND
COMPENSATION

Art. 7 ¹ Failed assessments can be repeated once. Other repetitions are regulated by article 37 of *RSL Phil.-nat. 18*.

² Failed assessments from the Elective Module (article 15) can be compensated with up to 10 ECTS credits.

³ Master's theses, the final exam and an internship cannot be compensated.

TEACHING LANGUAGE

Art. 8 The teaching and assessments are usually conducted in English. German or French can be selected as the teaching language if this is preferred by all the students in a unit.

II. Organization

STUDIES COMMISSION CLIMATE SCIENCES

Art. 9 ¹ The departments and institutes participating in the program form a permanent Studies Commission Climate Sciences (Studies Commission).

² The Studies Commission is identical to the scientific committee in accordance with article 9 of the regulatory framework for the Oeschger Centre for Climate Change Research.

³ After consultation with the Studies Director, the Studies Commission proposes to the Faculty the decision regarding student's admission to the Master's program in Climate Sciences. Admission rejections are issued by the Dean of the Faculty in the form of a contestable decision.

⁴ The Studies Commission is also an advisory body for the Studies Director. The Studies Commission shall take on the following tasks in particular:

- a It monitors the implementation of the Study Plan, checks the strategic alignment of the degree program and deals with any possible problems emerging while implementing the degree programs.
- b It supports the Studies Director in coordinating the courses in the degree program.
- c It drafts the Study Plan and possible changes to the Study Plan for the attention of the Faculty.
- d It creates tables of courses (annex 1 and 2) for the attention of the Faculty.
- e It creates lists of people entitled to supervise Master's theses and Doctorates (Supervisor or Co-supervisor as per article 21 of *RSL Phil.-nat. 18* and article 10 of *PromR Phil.-nat. 19*) for the attention of the Faculty.
- f It makes recommendations for approving external Supervisors or Co-supervisors (as per article 21 of *RSL Phil.-nat. 18* and article 10 of *PromR Phil.-nat. 19*) and Advisors for Master's Theses and external reviewers for doctoral theses.
- g It supports the Studies Director when it comes to coordinating with ETH Zürich, particularly with regard to organizing joint obligatory courses.
- h It can transfer tasks to the Studies Director.
- i It nominates the Studies Director and recommends him or her to the Faculty Council for approval (article 8 of *RSL Phil.-nat. 18*).

STUDIES DIRECTORATE

Art. 10 ¹ The Studies Directorate is comprised of the Studies Director, a Deputy Studies Director, an Advisor for students, and a secretary.

² The Studies Director is nominated by the Studies Commission and recommended to the Faculty Council for approval (article 8 of *RSL Phil.-nat. 18*).

³ The Studies Directorate has the following tasks in particular:

- a It coordinates the courses for the degree programs within the University of Bern.
- b After consulting with the Studies Commission, it coordinates collaboration with the ETH Zürich.
- c It ensures the exchange of performance assessments between the ETH Zürich and the University of Bern.
- d It organizes the joint compulsory courses together with the ETH Zürich.
- e It organizes the final exams (article 25 of *RSL Phil.-nat. 18*).
- f It maintains an information and advice center within its consultation hours and internet presence.
- g It has a budget from the Executive Board of the University of Bern within the “Oeschger Centre for Climate Change”, particularly for implementing the joint compulsory block courses with the ETH Zürich, for supporting student mobility, and allocation of teaching assignments in accordance with the regulatory framework for the Oeschger Centre dated September 20, 2007.

⁴ The Studies Directorate performs other tasks assigned to it by this study plan.

III. Master’s degree program in Climate Sciences

STUDY GOALS

Art. 11 ¹ The degree program includes expanding and deepening of the subject of climate sciences in an interdisciplinary context.

² Graduates can put what they learned in connection with “Global Climate Change” and “Sustainable Development” into practice and transfer the knowledge they acquired to new questions in the context of environment, society and the economy.

They can identify and formulate scientific problems, independently exploit existing research and solve the problems with a theoretically and methodically competent approach.

They can correctly present the knowledge they acquired to an expert audience orally and in writing in a comprehensible, professional and formal way.

They can deepen their knowledge in a chosen field of research in the context of a Master’s Thesis and thus learn how to conduct independent academic work under specialist supervision.

They are able to reflect on their knowledge critically, develop research questions and hypotheses, set up a research plan and implement this in a project. They can work professionally to collect, analyze and interpret relevant data comprehensively and in detail.

They can assess the significance of their scientific knowledge and ability, and are thus able to solve complex problems in academia and in practice.

ADMISSION

Art. 12 ¹ Admission requirements for the Master's program comply with articles 10 to 14 of *UniV*, and the matriculation process complies with articles 70 to 76 of *UniSt*, as well as article 10 and article 49f. of *RSL Phil.-nat. 18*.

² People with a bachelor's degree from a Swiss university in a subject relevant to the degree program (annex 1) can be accepted to the degree program. An applicant can be admitted if the necessary requirements for successful completion of the master's program can be met by producing a maximum of 60 ECTS credits of additional attainments.

³ Applicants with a bachelor's degree from a recognized foreign university with equivalent qualifications can be admitted if the necessary requirements for successful completion of the master's program can be met by producing a maximum of 60 ECTS credits of additional attainments.

⁴ The admission of students with a bachelor's degree from a University of Applied Sciences is governed by the relevant regulations of the university.

⁵ There may be a requirement for additional skills and knowledge which were not acquired over the course of the bachelor's degree program. These additional attainments are defined individually as conditions. The corresponding ECTS credits are shown separately on the diploma as additional attainments.

⁶ Definite admission is made dependent on an admission interview with the Studies Directorate (article 13). The Studies Commission makes the request for admission into the master's degree program to the Faculty Studies Committee. Negative decisions are issued by the Dean of the Faculty in the form of a contestable decision.

⁷ The Studies Commission defines the additional attainments and proposes them to the Faculty Studies Committee. Admission may be restricted to one or more main topics as per article 3 point a.

ADMISSION INTERVIEW

Art. 13 ¹ In addition to the written application documents, the admission interview serves as the basis for admission or rejection of candidates for the degree program.

² A personal interview will check whether

- a the applicant is suitable for the specific demands of the degree program based on their knowledge acquired to date and their interests,
- b additional attainments are needed,
- c the applicant's ideas for the topic of their Master's Thesis conform to the expertise of the graduate school,
- d the linguistic and communicative requirements for successful completion of the degree program are likely to appear.

³ The average grade (ECTS-weighted average) is usually a guideline for suitability with the condition that they have a grade of at least "good" in a subject relevant to the main focus.

	<p>⁴ The admission interview is conducted in English and is documented.</p>
STANDARD PERIOD OF STUDY POSSIBILITY OF AN EXTENSION	<p>Art. 14 The standard periods of study and possibilities for extensions are governed by article 12 of <i>RSL Phil.-nat. 18</i>.</p>
PROGRAM STRUCTURE	<p>Art. 15 ¹ The degree program includes one of the areas of focus as defined in article 3 point a. This area of focus is defined by the Master's Thesis.</p> <p>² The degree program includes the following modules:</p> <p>a Compulsory module:</p> <ul style="list-style-type: none"> – Module of compulsory courses including final exam (scope as per annex 1) – Master's thesis <p>b Compulsory elective module:</p> <ul style="list-style-type: none"> – Compulsory elective module (scope as per annex 1) – Compulsory elective module from ETH Zürich (scope as per annex 1) <p>c Elective module:</p> <ul style="list-style-type: none"> – Internship <p>³ Master's theses (60 ECTS credits) can be divided into an external internship amounting to 30 ECTS credits and a Master's Thesis amounting to 30 ECTS credits.</p>
COURSES	<p>Art. 16 ¹ The joint courses with ETH Zürich and other courses described in annex 1 are compulsory and are combined into one compulsory module.</p> <p>² The elective courses (annex 1) are combined into a compulsory elective module but are assessed individually. The courses for the "MSc in Atmospheric Climate Science" from ETH Zürich are also combined into the ETHZ compulsory elective module and assessed individually.</p> <p>³ The courses from ETH Zürich in the context of the "MSc in Atmospheric and Climate Science" are also open to students.</p> <p>⁴ The courses are usually run by the institutes and departments of the University of Bern participating in the degree program, as well as by the ETHZ units involved in the ETHZ's "MSc in Atmospheric and Climate Science".</p>
ACADEMIC CONSULTATION	<p>Art. 17 ¹ An individual academic consultation is recommended before the degree program is started; it is conducted by the Studies Directorate.</p> <p>² The selection of courses is as far as possible, set to take place at the start of the program in consultation with the Studies Directorate. The topic of the Master's Thesis and the student's prior knowledge influence the selection of the courses. The student's wishes will be taken into consideration as far as possible.</p>
CREDITING EXTERNAL ACADEMIC ACHIEVEMENTS	<p>Art. 18 ¹ Courses from other universities and other degree programs at the University of Bern at ETH Zürich can be recognized</p>

by the Studies Directorate up to the amount of 10 ECTS credits and taken into account for the degree program.

² The Faculty Studies Committee makes decisions on the recognition of courses which exceed the amount of 10 ECTS credits (Art 18.1).

INTERNSHIP

Art. 19 ¹ Students may, during the course of the degree program, complete an internship amounting to 30 ECTS credits (750 to 900 working hours) outside of their institute with the aim of receiving a practical insight into a potential professional environment, exchanging ideas with an external research group, or residing in a specialized laboratory.

² The selection of the internship position and the work are to be discussed in advance with the person supervising the Master's Thesis work. The internship must be approved by the Studies Directorate.

³ A written report is to be compiled regarding the internship and submitted to the supervisor of the Master's Thesis. The internship will be considered passed and credited to the program as soon as the internship report has been accepted by the Master Thesis supervisor following consultation with the internship supervisor.

⁴ Upon request, an internship worth 30 ECTS can be waived on the basis of a minimum of 2 years of professional experience in a field relevant to the degree program. The decision is made by the Studies Commission.

MASTER'S THESIS

Art. 20 ¹ Articles 27 to 31 and articles 51 to 53 of *RSL Phil.-nat. 18* shall apply for the Master's Thesis.

² As per article 15 paragraph 3, the Master's Thesis shall amount of 30 or 60 ECTS credits.

³ Master's Theses may be completed at a research group involved in the Oeschger Centre.

⁴ The topic of the master's thesis shall, if possible, be chosen in the first or second semester and discussed with the person supervising the Master's Thesis work. In the first semester, the student may, to a limited extent, begin familiarizing themselves with the topic and set up a work schedule.

⁵ The work schedule is usually examined and approved by the person supervisor of the Master's Thesis work in the second semester.

⁶ Work on the Master's Thesis shall last a maximum of 18 months and should usually be submitted to the supervisor of the Master's Thesis work by the fourth semester at the latest. The beginning is to be reported to the Studies Directorate in writing.

⁷ Master's Theses are usually written in English. It may consist of articles already submitted for publication. In this event, the text must be summarized in an introductory text and commented on.

⁸ A copy of the Master's Thesis must be submitted to the supervisor of the Master's Thesis work and the Studies Directorate ,

and the copy for the Studies Directorate must be submitted in digital format.

⁹ The author of a Master's Thesis shall be considered as the creator or co-creator in accordance with copyright law. The further use or publication of a Master's Thesis is regulated by a confidentiality agreement and accessibility statement.

SUPERVISION

Art. 21 ¹ As per article 21 of *RSL Phil.-nat- 18*, the Master's Thesis work is led by one or more authorized people (supervisors or co-supervisors) and will be supported by one or two advisors if need be. Advisors have significant involvement in supporting the Master's Thesis but do not need to be authorized to do so as per article 21 of *RSL Phil.-nat. 18*.

² Students are integrated into the research group of the supervisor of the Master's Thesis work.

ASSESSMENT

Art. 22 A Master's Thesis is to be assessed by the supervisor and co-supervisor within four weeks of submission for the attention of the Faculty Studies Committee, and the supervisors must agree on a grade.

FINAL EXAM

Art. 23 ¹ The final exam consists of a public talk on the subject of the Master's Thesis and a question and answer section on the subject of the Master's Thesis and the compulsory module, or an oral exam. It shall last 60 minutes.

² The final exam usually takes place in the fourth semester.

³ After consultation with, and in agreement with, the supervisors of the Master's Thesis work, the examination may take place up to two months before submission of the Master's Thesis.

⁴ The final exam is conducted with a chairperson and one or more other examiners. The chairperson is also an examiner. As per article 21 of *RSL Phil.-nat. 18*, all of them shall come from the circle of those authorized to supervise Master's Theses. The chairperson shall keep the minutes. They may not be involved in supervising the work on the Master's Thesis.

⁵ Written approval from the supervisor of the Master's Thesis and attendance at the compulsory module (module annex 1) are required for to register with the Studies Directorate for the final exam.

⁶ Students must register with the Studies Directorate at least 4 weeks before the final exam.

⁷ The module of compulsory courses (annex 1) assessed by the Studies Directorate is a prerequisite for registering for the final exam. If the exam is passed, the ECTS credits for the compulsory module and the grade from the exam will be credited to the student's academic achievements.

⁸ The examiners agree on a grade for the final exam as per article 34 paragraphs 1 to 4 of *RSL Phil.-nat. 18*.

PASSING STANDARD

Art. 24 ¹ The degree program is passed if:

- a the modules and courses are passed as per articles 15 and 16,
- b the requirements for compensation as defined by article 7 are met in the event that the grades are insufficient,
- c any additional attainments are assessed with an adequate grade,
- d the final exam is given a minimum grade of 4.0 and
- e the Master's Thesis is given a minimum grade of 4.0.

GRADE

Art. 25 Article 55 of *RSL Phil.-nat. 18* shall apply for the master's degree grade.

IV. Climate Sciences doctoral program

STUDY GOALS

Art. 26 The graduates are able to systematically apply and expand the theoretical and methodological knowledge acquired in their prior education.

They can independently develop an extensive research topic and critically reflect on, assess and integrate the literature and methods upon which their work is founded, as well as the results from their own original research. They thus contribute to resolving a research and/or social problem. They are able to present their research in a reasonable manner to an academic audience in a way which is understandable and correct in terms of content and formality.

They can publish academic articles in reputable academic journals.

ADMISSION

Art. 27 ¹ Articles 7 and 8 of *PromR Phil.-nat. 19* shall apply for admission.

² In accordance with paragraph 1, people who have a supervisor as defined by article 10 of *PromR Phil.-nat. 19* will be accepted as doctoral candidates.

ADMISSION OF
PHD STUDENTS FROM OTHER
FACULTIES AT THE UNIVERSITY
OF BERN

Art. 28 The Graduate School of Climate Sciences can also accept doctoral students from other faculties at the University of Bern if these doctoral students are members of the Oeschger Centre. These students shall study the Climate Sciences program with the present study plan, but follow the the regulations of the respective faculty, and shall also be registered with the respective faculties.

SCOPE

Art. 29 ¹ The program includes credit units in the context of the doctoral program, as well as the composition of a doctoral thesis and usually lasts 3 to 4 years.

² The Studies Commission can declare specific units of credit as being compulsory.

³ The doctoral program comprises:

- a A compulsory module (as per annex 2)
- b A compulsory elective module (as per annex 2)

DOCTORAL THESIS	<p>Art. 30 ¹ Doctoral students are to report to the Studies Directorate at the beginning. The Studies Directorate reports the commencement of the doctoral thesis to the dean's office.</p> <p>² The supervisor and the doctoral student shall draw up a doctoral agreement at the beginning of work on the doctoral thesis. A copy is to be delivered to the Studies Directorate.</p> <p>³ The Faculty is to make sure that an additional supervisor is available to supervise the doctoral student. They will be named in the doctoral agreement.</p> <p>⁴ In consultation with the doctoral student, the supervisor shall specify the co-examiner at least three months before completion and shall make a corresponding request to the Faculty Studies Committee.</p> <p>⁵ The doctoral thesis shall be assessed as per article 20 of <i>PromR Phil.-nat. 19</i>.</p>
DOCTORAL EXAM	<p>Art. 31 ¹ The doctoral exam and the examiners are regulated by articles 22 to 25 of <i>PromR Phil.-nat. 19</i>.</p> <p>² The doctoral exam lasts 60 to 90 minutes.</p>
PASSING STANDARD AND OVERALL MARK	<p>Art. 32 ¹ The doctoral program is passed if</p> <ul style="list-style-type: none"> a the compulsory module and the compulsory elective module are each passed, b any other attainments as defined by the doctoral agreement are passed, c the doctoral thesis is given a minimum grade of 4.0, d the doctoral exam is given a minimum grade of 4.0, e any conditions have been met. <p>² The overall mark is calculated as 75% from the grade for the doctoral thesis and 25% from the grade from the doctoral exam.</p>
	<p>V. Administration of justice</p>
COMPLAINTS PROCEDURE	<p>Art. 33 The provisions in <i>RSL Phil.-nat. 18</i> and <i>PromR Phil.-nat. 19</i> shall apply.</p>
	<p>VI. Transitory and final provisions</p>
MODIFICATIONS TO THE STUDY PLAN	<p>Art. 34 Modifications to the study plan are subject to approval by the Executive Board of the University of Bern. Exempt from this are modifications to the annex, which come under the authority of the Faculty Council.</p>
TRANSITORY PROVISIONS	<p>Art. 35 ¹ Students beginning their degree program at the Oeschger Centre for Climate Change Research from the beginning of the 2019 autumn semester are under the existing study plan.</p> <p>² Students who began their degree program in accordance with the study plan for the specialized Master's degree program and PhD degree program in Climate Sciences dated November 10, 2011 shall transfer to the existing study plan.</p>

VALIDITY

Art. 36 This study plan replaces the study plan for the specialized Master's degree program and PhD degree program in Climate Sciences dated November 10, 2011 and entered into force on August 1, 2019.

Bern, November 8, 2018

In the name of the Faculty of Science
The Dean:

Prof. Zoltan Balogh

Approved by the Executive Board of the University of Bern:

Bern, January 15, 2019

The Rector:

Prof. Christian Leumann