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UNIVERSITÄT
BERN

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

Plan of Studies for the Specialized Master’s Program in Space Sciences and Astronomy

of December 4, 2025 (effective August 1, 2026)

The Faculty of Science is,

based on Article 44 of the statute of the University of Bern dated June 7, 2011 (University Statute, UniSt) and on the regulation regarding courses of study and assessment in the Faculty of Science dated May 24, 2028 (study regulations for the Faculty of Science, [RSL Phil.-nat. 18]),

issuing the following plan of studies:

I. General Information

SCOPE	Art. 1 ¹ This plan of studies applies to all students of Space Sciences and Astronomy at the Faculty of Philosophy and Natural Sciences (Faculty) or students who receive credits from the Space Sciences and Astronomy study program as part of other study programs.
STUDY PROGRAMS	Art. 2 ¹ The following study program is offered: <i>a</i> Specialized Master’s Study Program in Space Sciences and Astronomy (Mono, 120 ECTS credits).
TITLE	Art. 3 ¹ The following title can be acquired: <i>a</i> Master of Science in Space Sciences and Astronomy, University of Bern (MSc).
ECTS CREDITS AND LEARNING OUTCOMES	Art. 4 ¹ The number of ECTS credits and the learning outcomes for each course are defined in the electronic course catalog and the appendix.
CREDIT	Art. 5 ¹ Up to 10 ECTS credits from other Master’s programs at the University of Bern and other universities may be credited to the Master’s Program in Space Sciences and Astronomy with the corresponding ECTS credits upon application to the Director

of Studies. The assignment to the modules is the responsibility of the Director of Studies.

MODULES AND SELECTION OF
CREDIT UNITS

Art. 6 ¹ Courses may be grouped together into modules.

² The electronic course catalog lists the units that can be credited to the individual modules. Any compulsory credit units are listed in the appendix.

³ The credit units of the modules are confirmed individually through an academic performance assessment.

⁴ A unit can only be credited to one module.

⁵ The grade for a module is the ECTS-weighted average of the grades for each unit contained in the module.

ASSESSMENT

Art. 7 ¹ The type of assessment (e.g. written or oral exam) is specified in the electronic course catalog. The timing, modalities, registration and withdrawal deadlines for academic assessments are determined and announced by the Director of Studies in consultation with the course instructors.

² The release of assessment results is covered in Article 35 RSL Phil.-nat. 18. Students may inspect the documents within one month of the results being announced.

³ In all other respects, Articles 20 to 40 RSL Phil.-nat 18 apply.

REQUIREMENTS FOR
PARTICIPATION IN
ASSESSMENTS

Art. 8 ¹ The requirements for participation in performance assessments are specified in the electronic course catalog.

² Students who register for performance assessments but do not meet the conditions for participation will be asked by the responsible instructor to withdraw from the assessment by e-mail.

³ Students who do not comply with the request to withdraw, even though they do not meet the conditions for participation, will generally be excluded from the performance assessment.

⁴ Written examinations submitted by students who participate in an assessment even though they do not meet the conditions for participation will not be graded.

RETAKE AND COMPENSATION

Art. 9 ¹ Failed assessments may be repeated once within a year. Further details are regulated in Article 37 RSL Phil.-nat. 18.

² In the Compulsory Courses Module, insufficient grades can be compensated within the module if the module grade is sufficient, provided that no more than one grade is insufficient and this grade is no less than 3.0 (Art. 38 para. 1 RSL Phil.-nat. 18).

³ For the Elective Courses only passing assessments will be credited.

⁴ The Master's thesis cannot be compensated.

GRADING

Art. 10 ¹ Article 34 RSL Phil.-nat. 18 applies to grading.

² Ungraded assessments are evaluated in accordance with Article 34, paragraph 2 RSL Phil.-nat. 18.

³ The electronic course catalog specifies which performance assessments are graded.

LANGUAGE OF INSTRUCTION

Art. 11 ¹ Courses are conducted in English. Courses which must be taken as admission requirements are usually conducted in German.

MOBILITY

Art. 12 ¹ Mobility stays – either with ENLIGHT partners or exchange partners worldwide – are usually scheduled for the second or third semester of the Master’s program.

ACADEMIC STUDENT ADVICE

Art. 13 ¹ Students are entitled to academic advising.

II. Master’s Study Program

1. Specialized Master’s Program in Space Sciences and Astronomy (Mono, 120 ECTS credits)

STUDY OBJECTIVES

Art. 14 ¹ Graduates will be able to

- describe and critically evaluate theories, experiments, and methods in space sciences and astronomy.
- establish the necessary connections between theory, laboratory experiments, and observations to answer scientific questions.
- apply, systematically compare, and combine theories, experiments, and methods in the specialized field of their Master’s thesis.
- summarize, classify, and critically evaluate peer-reviewed publications.
- apply ground- and space-based instruments in experiments.
- systematically compare and apply analytical techniques for a specific data set to answer specific scientific questions.
- evaluate and critically assess data sets, uncertainties, precision, and accuracy using statistical tools.
- develop numerical methods into program codes for simulation purposes.
- apply known methods to new problems.
- plan and apply strategies for testing hypotheses using scientific literature.
- write scientific publications, present them orally, and answer critical questions.

ADMISSION REQUIREMENTS

Art. 15 ¹ The admission requirements for the degree program are governed by Articles 10 to 14 UniV, the enrollment procedure is governed by Articles 70 to 76 UniSt and Articles 10 and 49f. RSL Phil.-nat. 18.

² Applicants with a Bachelor’s degree from a Swiss university with at least 30 ECTS credits in Physics and/or Astronomy and 50 ECTS credits in a natural science or engineering science

subject may be admitted to the program. The Director of Studies defines the content of the required coursework.

³ Applicants with a Bachelor's degree from a recognized foreign university with equivalent qualifications may be admitted, provided that the necessary requirements for successful completion of the Master's program can be met by completing additional coursework worth a maximum of 60 ECTS credits.

⁴ Knowledge and skills that have not been acquired in the completed Bachelor's program may be required as additional coursework, provided that they do not exceed 60 ECTS credits. These additional credits are defined individually; the corresponding ECTS credits are listed separately as additional credits in the diploma supplement. If the scope of the missing credits exceeds 60 ECTS credits, admission is not possible.

⁵ Admission is contingent upon a standardized interview with the Director of Studies (Art. 17). The Director of Studies applies to the Board of Studies for admission to the Master's program. Negative decisions are issued in the form of a contestable decision by the Board of Studies.

⁶ The Director of Studies defines the additional credit requirements and submits them to the Board of Studies.

LANGUAGE REQUIREMENTS

Art. 16 ¹ Applicants with a foreign educational qualification must present a language test at level C1 of the Common European Framework of Reference with the corresponding minimum result when registering for the program:

Language Test	Minimum Score
TOEFL iBT (Score 0-120)	95
IELTS	7.0
Cambridge C1 Advanced (CAE)	

² The language test must not be older than two years at the time of application; older tests will not be accepted.

³ An exemption from the English test is possible in the case of students who have completed their studies in English within a language community in which English is the majority spoken language.

INTERVIEW

Art. 17 ¹ Those who meet the admission requirements in accordance with Article 15, paragraphs 1 to 3, will be invited to a standardized online interview.

² The standardized interview serves as an additional basis for the Director of Studies, alongside the written application documents, for assessing the personal and professional suitability of applicants for the program.

³ The following competencies are assessed:

- a Methodological competence (incl. intellectual competence, learning ability, agency),
- b Technical competence,
- c English language competence,
- d Personal competences (incl. self-reflection, motivation).

	<p>⁴ The interview is conducted by the Director of Studies or a lecturer appointed by the Director of Studies, and another person designated by the Director of Studies.</p> <p>⁵ The interview is conducted in English and will be recorded.</p>
<p>REQUIREMENTS</p>	<p>Art. 18 ¹ The study program consists of the following requirements:</p> <p><i>a</i> Compulsory requirements worth 90 ECTS credits:</p> <ul style="list-style-type: none"> – Compulsory Courses Module (30 ECTS credits as per the appendix) – Master’s Thesis Module (60 ECTS credits) <p><i>b</i> Elective courses worth 30 ECTS credits in accordance with the appendix.</p> <p>² Details can be found in the appendix.</p>
<p>MASTER’S THESIS</p>	<p>Art. 19 ¹ Articles 27 to 31 and 51 to 53 RSL Phil.-nat. 18 apply to the Master’s thesis.</p> <p>² The Master’s thesis is worth 60 ECTS credits.</p> <p>³ The written thesis is usually started in the third semester and completed within 12 months. Students must notify the Director of Studies in writing when they begin their thesis.</p> <p>⁴ An unsatisfactory written thesis may be repeated once.</p> <p>⁵ The written thesis includes a final examination.</p> <p>⁶ The grade for the Master’s thesis is composed of the triple-weighted grade for the written thesis and the single-weighted grade for the final examination. Both grades must be satisfactory.</p> <p>⁷ The grade is rounded in accordance with Article 34, paragraph 6 RSL Phil.-nat. 18.</p>
<p>FINAL EXAMINATION</p>	<p>Art. 20 ¹ If the grade for the written thesis is at least satisfactory in accordance with Article 19, a final examination shall take place.</p> <p>² The final examination consists of a public presentation and a question-and-discussion session on the topic of the Master’s thesis.</p> <p>³ The final examination is conducted by two examiners; one of them is the supervisor of the written thesis, the other is another member of the faculty authorized to conduct examinations in accordance with Article 21, paragraph 1 RSL Phil.-nat. 18,</p> <p>⁴ The final examination lasts 40 to 60 minutes.</p> <p>⁵ An unsatisfactory final examination may be repeated once.</p>
<p>CONDITIONS FOR PASSING</p>	<p>Art. 21 ¹ The study program is considered to have been successfully completed, if:</p> <p><i>a</i> the modules and selected elective courses in accordance with Article 18 have been completed with a grade of at least 4.0,</p> <p><i>b</i> in the case of unsatisfactory grades, the requirements for compensation in accordance with Article 9 have been met,</p>

- c the Master's thesis has been graded at least 4.0,
- d the grade point average is satisfactory (grade 4.0), and
- e any additional program-specific conditions have been fulfilled to a satisfactory level.

FINAL GRADE

Art. 22 ¹ Article 55 paragraph 2 RSL Phil.-nat. 18 applies to the final Master's grade.

III. Administration of Justice

COMPLAINTS PROCEDURE

Art. 23 ¹ The complaints procedure is governed by RSL Phil.-nat. 18.

IV. Final Provisions

AMENDMENTS TO THE STUDY PLAN

Art. 24 ¹ Amendments to the plan of studies are subject to approval by the Executive Board of the University. This does not apply to amendments to the appendix, which fall within the competence of the Faculty Council.

EFFECTIVE FROM

Art. 25 ¹ This plan of studies shall enter into force on August 1, 2026.

Bern, December 4, 2025

On behalf of the Faculty of Science
The Dean:

Prof. Dr. Jean-Louis Reymond

Approved by the Executive Board of the University:

Bern, December 16, 2025

The Rector:

Prof. Dr. Virginia Richter