

Guidelines for the Pharmacy Master Thesis 2025

- Important:** These guidelines must be carefully read by the students and responsible and supervising persons before the start of the Master thesis.
- Goal:** The goal of the Master thesis is to learn scientific work and the implementation of a research project in a practical way. This includes research in the relevant specialist literature, formulating questions and hypotheses, planning and conducting laboratory experiments or studies, analysing and presenting the results, writing a report or publication, and an oral presentation of the work.
- Duration, timing:** The Master thesis lasts **6 months (26 weeks)**. It takes place in the time slot from the beginning of January to the beginning of August in the 1st year of the Master's programme (overall year 4). It must be started between January 3rd and February 1st. The supervisor and the student agree on the exact starting date.
- Part-time: It is also possible to perform the Master thesis on a part-time basis of 80%, i.e. 4 working days per week, e.g. in the case of a part-time occupation or childcare duties. In this case, the Master thesis is extended by 5 weeks and lasts from the beginning of January to the beginning/middle of August. The approval of the responsible person (project leader) is required.
- Working hours:** Students will receive 30 ECTS credit points for their successful Master thesis. Therefore, the following working hours apply: 1 ECTS is equivalent to 25-30 working hours. Thus, 30 ECTS are equivalent to **a total of 750-900 working hours**. That means, for the duration of the Master thesis of 26 weeks, the students must dedicate **30-35 h per week to work on their Master thesis project**.
- Vacations:** During the Master thesis, students are entitled to take **5 days off**. In agreement with the responsible person, these 5 days can be taken individually or consecutively. An extension of the Master thesis for vacations during the Master thesis is not possible. Longer vacations should therefore be taken before or after the Master thesis.
- Elective courses:** During the spring semester, the students take 1-2 elective courses (at least 3 ECTS points). Students must be given the time to attend the elective courses and to study for the exams. However, the working hours needed for the elective courses and exam preparations are **NOT** included in the weekly 30-35 working hours for the Master thesis. That means, the students have to dedicate additional time for the elective courses (3 ECTS are equivalent to 75-90 h, i.e. additional 3-4 h per week for the elective courses during 26 weeks of the Master thesis).

Subject areas: The Master thesis can cover any topic in the field of Life-Sciences within Natural Sciences, in Pharmaceutical Sciences, Biomedical Sciences, and Veterinary Sciences. Furthermore, the students have the possibility to perform their Master thesis in an external institution such as a pharmaceutical company or another University in Switzerland or abroad.

Responsible person: The Master thesis is supervised by a person from the Faculty of Medicine, the Faculty of Natural Sciences, or the Faculty of Veterinary Medicine (Vetsuisse) of the University of Bern who is entitled to do so according to Article 22, paragraph 1 of the study regulations for the Master curriculum in Pharmacy (RSL Pharm).

Obligations of the responsible person (project leader): To provide the workplace, equipment and required materials. For a good start, a good introduction of the students into the research project and the required working methods is essential. The main task is the supervision of the students during their work and their integration into the team. The daily supervision can be delegated to an additional supervisor within the team. **However, a close supervision of the student with regular contact with the responsible person must be guaranteed. The responsible person must always be aware of the progress of the project and must provide feedback and support to the student on a regular basis.**

External Master thesis: If the Master thesis is carried out externally, co-leadership by a competent person on site and a co-supervisor from the University of Bern (see above) is required.

Compensation: The students will not receive any compensation. For institutes at the University of Bern and clinics at the University Hospital Inselspital, a compensation for Pharmacy Master theses is made by a financial reimbursement and/or via teaching hours ("Lehrleistung"). Compensation is unfortunately not possible for external master theses. (→ please also refer to the separate detailed information)

Selection of topics: A broad selection of topics will be published during the autumn semester on the Pharmacy Website (ILIAS platform). Students can also suggest their own topic and supervisor (and if external, also a co-supervisor from the University of Bern) – in that case the topic and supervisor(s) must be approved by the Director of Studies (Studienleitung).

Upon publication of the topics in mid-October, students choose the topics of their interest and contact the responsible persons to introduce themselves and get more information (on the topic, the research group etc). On a certain due date in the mid-November, all students declare their 3 chosen topics (from 3 different research groups) to the Director of Studies / study coordination. That information will be forwarded by the Director of Studies / study coordination to the responsible persons while ensuring that every student will be assigned one of their 3 chosen topics. If more than one student apply for the same topic the responsible person decides to whom they would like to assign the topic. Students and

responsible persons/supervisors then fill out the **Master thesis agreement**, which is submitted by the students to the study coordination by **November 1st**.

Execution: The Master thesis is an individual work. Group work is not possible.

Written thesis: The Master thesis is a written report containing the following **chapters**: Title page (according to the template), summary, introduction, question and objectives, material and methods, results, discussion, bibliography (Vancouver style), appendix (raw data, data analysis, etc.), explanation (on last page, according to the template).

The written thesis should be **20-30 A4 pages** long (without title page, bibliography, appendix and explanation), font size 11, Arial or Times New Roman font, line spacing 1.5. If the thesis greatly (by more than 10%) exceeds 30 pages, the text should be shortened, and it can be considered to move some data into the appendix and present a summary in the main text. The thesis can be written in English, German or French, in agreement with the supervisor.

Submission: The written thesis must be submitted by the student by uploading it **into PlagScan**, at the latest 6 months after the start of the Master thesis. The instructions for PlagScan upload will be sent to the students by e-mail. The responsible person will receive the thesis via PlagScan incl. the plagiarism test report. In case of more than 15% duplicate content, the thesis must be revised and resubmitted. The thesis must be evaluated by the responsible person/supervisor according to the criteria listed below and marked on the assessment form, at the latest by the end of August.

Oral presentation: The oral presentation takes place around the end of the six-months Master thesis period in an internal seminar at the institute in front of an internal and if possible also external audience. It lasts **30-45 minutes**. Half of the time should consist of the presentation and the other half of a questioning/discussion on the Master thesis and related areas.

Assessment: The practical work, written Master thesis and oral presentation will be marked by the responsible person/supervisor according to the criteria listed below on the assessment form. The Master thesis and presentation can each be repeated once. The final grade consists of the grades for the practical work, the written report, and the oral presentation, 1/3 each, rounded to a half grade.

The responsible person gives the **assessment form** to the student and sends an electronic copy to the study coordination by 31st August 2025 at the latest.

Criteria:

Practical work

- Understanding of the open questions/problems, independence in planning and implementation
- Commitment and motivation
- Quality of project work/laboratory work: planning, organisation, accurate and reliable work
- Laboratory journal/documentation: presentation, reproducibility
- Independence in interpretation and evaluation of the results
- Independence in writing the report

Written report

- General structure
- Introduction: Current literature correctly reproduced, open questions and hypotheses formulated, aim of the project is clear
- Material and methods: Complete and clearly described so that the experiments/study/data collection can be followed
- Display of the results: Objectively described and illustrated with the help of meaningful tables and graphs
- Discussion: interpretation of the results, limitations, scientific argumentation
- References: Correctly cited
- Language: clarity, comprehensibility
- Annex appropriate and complete
- Plagiarism examination: The written report is subjected to a plagiarism examination

Oral presentation

1. Talk:

- General structure of the talk (introduction, main part, conclusion)
- Quality of the slides (readability, use of font, graphics and colour, structure)
- Presentation (speech flow, eye contact, gestures, authenticity)
- Linguistic accuracy
- Relevance of the contents (the most important results of the Master thesis were presented and discussed)

2. Discussion:

- Answering questions (of knowledge)
- Formulating and substantiating hypotheses
- "Depth" of the scientific discussion

Summary of the time schedule

The tasks of the **students** and **responsible persons** are highlighted in colour.

When	Who	What
July 2024	Director of Studies	Invitation to research group leaders at the Faculties of Medicine (incl. Insel Hospital), Natural Sciences, and Veterinary Medicine to submit topics for Master thesis projects
By 15.09.2024	Responsible persons	Submission of topics for master thesis projects, using the template, to the Director of Studies and study coordination
Mid-October 2024	Study coordination	Publication of all submitted topics on the Pharmacy Website (ILIAS platform)
Mid-October to mid-November 2024	Students	Students contact the responsible person of topics of their interest, introduce themselves and get further information on the topics
Due date mid-November (will be announced)	Students	Students inform the Director of Studies / study coordination about the three topics of their choice from three different research groups (without ranking)
Mid-November	Director of Studies / study coordination	Forward the information on the chosen topics to the responsible persons, ensuring that every student is assigned to one of their three chosen topics. In case several students chose the same topic the responsible person decides about the assignment.
Mid- to end of November	Responsible persons	Contacts the students and informs them about the assigned topic.
By 01.12.2024	Students	Submission of the Master thesis agreement (electronic copy) to the study coordination
Between 03.01. und 01.02.2025	Students	Start of the Master thesis
Spring semester 2025	Students	Attendance of the mandatory elective courses (at least 3 ECTS)
6 months after start	Students	Submission of the written thesis to PlagScan 6 months after the start (i.e. who started on the 3 rd January, has to submit by 3 rd July at the latest)
Approx. 6 months after start (flexibility of +/- 2-3 weeks)	Students	Oral presentation of the work in an internal seminar at the department/institute
Within 4 weeks after submission (by 31.08.2025 at the latest)	Responsible persons/ supervisors	Evaluation of the practical work, written thesis and oral presentation. Handing over the assessment form to the student and submission (electronic copy) to the study coordination.
After receiving the assessment form	Study coordination	Enter the results into the KSL

If you have any questions, please contact Prof. Dr. phil. Verena Schröder (Director of Studies for the Master in Pharmacy, E-mail: verena.schroeder@unibe.ch) or Barbara Rechsteiner (Study coordination, E-mail: barbara.rechsteiner@unibe.ch).