

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

ELITE MASTER PROGRAM HUMAN BIOLOGY PRINCIPLES OF HEALTH AND DISEASE



Master's thesis guidelines

These guidelines contain information on the following topics:

- General rules about the Master's thesis
- External master's thesis
- Registering the master's thesis
- Master's thesis disputation
- Research Seminar
- Extensions of deadline and interruption of the master's thesis
- Submitting the master's thesis
- Insufficient master's thesis project
- Rules for the use of artificial intelligence (AI) tools for examination-relevant activities
- Relevant forms

Master's thesis general rules

- The master's thesis is part of the last semester, which includes a total of 30 ECTS points. The actual master's thesis (P 9.1) worth 26 ECTS points is accompanied by the following courses:
 - Master's thesis disputation (1 ECTS credit) (P 9.2)
 - Research seminar (1,5 ECTS credits) (P 8.2)
 - Biomedical colloquia (1 ECTS Credit) (P 8.1)

P 8.1 can be viewed as an independent course and is described in the downloads section in the "Colloquia Lists" document. All three other courses (P8.2; P9.1 and P9.2) are completed as part of the master's thesis and are explained in more detail here.

- The master's thesis consists of an independent research project over a period of 24 weeks.
- You can only start your master's thesis if you have successfully completed your first semester (the modules P1-P5) and at least 27 ECTS credits from the compulsory elective modules of the second semester (WP 1-WP13).
- The master's thesis project should be carried out under the supervision of an internal member of the Master Human Biology Principles of Health and Disease (MHB) of the LMU Munich, see the list of so-called "List of internal supervisors*".
- The topic of the master's thesis project should be in the field of biomedical sciences. The topic can only be changed once and only within two weeks after the beginning of the project.
- The total length of the thesis should be 40-60 pages, excluding attachment. According to the examination regulations, there are no additional regulations as to how the master's thesis should be written; You will arrange this with your internal supervisor. Please also pay attention to the rules for using artificial intelligence (AI) tools for exam-related activities, such as writing a lab report of 10-15 pages. See last page of this guidelines.

External master's thesis project

It is possible to carry out a master's thesis project in another institution or faculty than the labs of the members of the Human Biology Program of the LMU Munich if the Examination Board of the Master of Science program in Human Biology – Principles of Health and Disease approves the external project. In this case, it is necessary to arrange for an internal supervisor. The internal supervisor is responsible for assigning the grades.

Whether a master's thesis project is considered to be an external or internal one depends on your supervisor: If your supervisor is a member of the MHB study program, that means, that the supervisor is included in the *list of internal supervisors**, the research course will be regarded as an internal one. -even if the course does not take place directly at the Faculty of Biology or the Faculty of Medicine.

It is recommended that the external supervisor is habilitated, that means the person has the title "PD" or "Professor". If this is not the case, the internal supervisor can decide whether he would like to take on co-supervision with the person who does not have a habilitation qualification.

Prior to starting a master's thesis project with an external (non-MHB-Member) supervisor, **the student is responsible for finding an appropriate MHB member** to co-sign for the project, ensuring that its content and execution meet the faculties standards. For this, student and external supervisor should provide a short outline of the goals of the master's thesis project.

After having arranged for an internal supervisor, but **prior to starting** the master's thesis project, the student must apply for its approval to the Examination Board of the Master of Science program in Human Biology – Principles of Health and Disease through the Examination Office ("Prüfungsamt"). Approval of the Examination Board must be obtained before the project begins, which in practice means that students will have to submit the combined External Master's Thesis Application and Registration Form to the Examination Office via E-mail (bpa@bio.lmu.de) or in person (LMU Biocenter, B00.056) at least 2 weeks prior to starting the external master's thesis project.

In addition to the filled and signed form the application for an external master's thesis project* must include:

- a brief project description (1 2 pages),
- a timetable with monthly planning that is signed by the external supervisor.

Registering the master's thesis

The thesis project and its official starting date must be registered with the Examination Office. The internal supervisor and the student must sign the forms:

- Internal master's thesis registration form for internal projects*,
- External master's thesis application and registration form for external projects*.

Please note that the **starting date** of the thesis has to be on a **Monday**! The registration form can be submitted via email or in person (bpa@bio.lmu.de) anytime during the opening hours of the Examination Office ("Prüfungsamt"; Biocenter LMU; B00.056), but by the Monday on which the master's thesis project starts at the latest.

If you plan to graduate before the start of a new semester, the master's thesis should start by the beginning of March (in case of a master's thesis in the summer semester) or by the beginning of September (in case of a master's thesis in the winter semester). You need to both submit and defend

your thesis successfully **before** the start of a new semester if you do not wish to be enrolled for another semester.

Once registered, the master's thesis **must be completed within 24 weeks**. The exact due date will be provided by the Examination Office at the time of registration.

Master's thesis disputation (1 ECTS credit) (P.9.2)

As part of their thesis work, students should present their research to their supervisor(s), co-workers, and fellow students. The defense begins with a presentation of the thesis (around 20 minutes) and is followed by questions and a discussion. The graded defense should take place within the group where the research was carried out or in the group meeting of the internal supervisor. The internal supervisor must attend the defense, even in case of an external master's thesis project.

It is recommended to have the defense take place within 2 weeks after submitting the thesis, it can occur before thesis submission.

Research seminar (1,5 ECTS credits) (P 8.2) As part of their thesis work, students should attend the research group seminar (journal club) of their research group.

Extensions of deadline and interruption of the master's thesis

Extensions of the submission deadline are not granted in order to do more experiments or analyses, or to repeat failed experiments. An interruption of the thesis is only allowed in cases where the student is unable to work on the project due to medical reasons. In such cases, the student must apply to the Examination Office using the form "Application for master's thesis extension*" and provide medical documentation of the exact dates that she/he was unable to work. The deadline can only be extended for this period of time.

Submitting the master's thesis

Two hard copies of the master's thesis with **fixed, non-spiral** binding must be submitted **by the individual submission deadline** that the student received upon registering the master's thesis project.

- The first hard copy of the master's thesis must be submitted to the Examination Office. It is recommended to do this in person so that it is confirmed that the thesis was submitted in time and arrived properly. However, if you do not manage to submit it during the office hours of the Examination Office, you can put the hard copy of the master's thesis in the mailbox of the Examination Office next to the porter on the ground floor of the Biocenter. In that case, you should request the porter to add a date stamp to the master's thesis of the day on which you hand in the thesis
- The second hard copy of the master's thesis should be provided by the student to the internal supervisor by the individual submission deadline.

For the hard copy of the master's thesis to be submitted to the Examination Office **the filled and signed** *last page (including statement of originality*)* is to be included.

Grading of the master's thesis

The thesis can be submitted up to 4 weeks before the official submission date. After the thesis is submitted, the internal supervisor will be contacted by the Examination Office and asked to provide within 2 weeks:

- a signed hard copy or digital version of thesis evaluation with the thesis grade,
- the date and grade of the thesis disputation, and
- a confirmation of participation in the research seminar

Insufficient master's thesis project

- Late submissions are not accepted. If the master's thesis is not submitted by the submission deadline, the thesis will be marked "insufficient" and ECTS credits cannot be awarded.
- If a master's thesis is marked worse than "sufficient" (4.0), it can be repeated only once at the next possible time.

Rules for the use of artificial intelligence (AI) tools for examination-relevant activities

- 1. The use of AI tools for examination-relevant performances is possible.
- 2. The use of AI tools to optimize, translate and correct the spelling and grammar of self-generated texts and to optimize self-generated illustrations is permitted.
- 3. Text sections and illustrations de novo generated by AI tools and used in the thesis or lab report must be clearly marked by footnotes/annotations at the appropriate places and the AI tool must be indicated analogously to literature sources. The prompts used are listed in the appendix.
- 4. Sections of the text generated through iterative use of AI tools should be marked.
- 5. The author is responsible for the correctness and proper presentation in written performances and presentations.
- 6. Sources / references must be cited in accordance with the rules of good scientific practice.

*Relevant Forms

All relevant forms:

- internal master's thesis registration
- external master's thesis application and registration
- list of internal supervisors
- start and ending dates
- application for master's thesis extension
- last page

can be found in the downloads section of the master's website:

https://www.mhb.uni-muenchen.de/downloads/index.html