

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

ELITE MASTER PROGRAM HUMAN BIOLOGY PRINCIPLES OF HEALTH AND DISEASE



Research course guidelines

General information and rules

- Research courses are credited with 12 ECTS credits.
 10 ECTS credits for the research course and 2 ECTS credits for attending the group seminar of the lab that you do your research course in.
- Duration: (equivalent of) 8 weeks full-time lab work + 1 week preparation of lab report = 9 weeks in total. Full-time: 5 days per week, 8 hours per day.
- During the research course, you are allowed to attend classes. The duration of your research course will be prolonged accordingly.
- Only one out of two research courses may be completed in an external (non-mhb) lab.
- Both research courses taken by one student have to take place in different labs and topics.
 Students apply directly to the professor or primary investigator to arrange time, topic and specific requirements.
- No ECTS credits can be awarded for research courses for which you receive pay.
- An approved and graded (by the supervisor) written lab report (10 15 pages) and an oral
 graded presentation (30 minutes) are the requirements for successful completion of the course.
- Please 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.
- After completing your research course, please provide your supervisor with the relevant forms to
 fill out, which you can find on the last page under "overview" and on the download page of the
 mhb-webpage and the Examination Office. The supervisor or you can then forward these forms
 to the Biology Examination Office by email bpa@bio.lmu.de.

Internal or external research course – general rules:

- Only one out of two research courses may be completed in an external (non-mhb) lab.
- Whether a research course is considered to be an external or internal one depends on your supervisor: If your supervisor is a member of the mhb study program (which he/she is if they are mentioned on the list of internal supervisors, which can be found on the website of the master's program under "Downloads"), the research course will be regarded as an internal one -even if the course does not take place directly at the Faculty of Biology.
- Upon satisfactory completion of the internal or external research course, the relevant supervisor has to fill out the relevant "confirmation" and the research course will be credited to your transcript. Please prepare the relevant "confirmation" for your supervisor, present it to her/him for signature and then hand it in to the examination office. Your supervisor can also forward the document to the Examination office via email bpa@bio.lmu.de.
- Please read carefully all detailed information about the internal or external research course. You can find an overview about this topic on the last page.

Internal research course:

- Prior to officially starting a research course with a habilitated internal mhb supervisor, the student is responsible for finding an appropriate member of the mhb programme. It is not required to register the internal supervision prior to starting it.
- If you are unsure if your supervisor can be considered internal supervisor, please contact the study coordinator before starting the research course to confirm.
- Upon satisfactory completion of the internal research course, the supervisor has to fill out the
 document "confirmation internal practical course" and the research course will be credited to
 your transcript.
- Please send the signed form to the examination office: bpa@bio.lmu.de.

External research course:

Case 1:

- If you like to start a research course with a **habilitated supervisor** of the Faculty of Biology or the Faculty of Medicine of the LMU Munich, but outside the MHB Member list (list of internal supervisors), there is no prior registration and no internal supervisor necessary.
- Please note that the research course is considered an external research course, although no internal supervisor is required.

Case 2:

- Prior to officially starting a research course with an external (non-mhb) supervisor, the student is responsible for finding an appropriate member of the mhb program (internal supervisor) to cosign for the course, ensuring that its content and execution meet the faculty standards. This step is necessary only if the external non-mhb member is additionally a non-member of the Faculty of Biology or the Faculty of Medicine. For this, student and external supervisor should provide a short outline of the research course timeline and goals to the internal supervisor. The internal mhb supervisor should co-sign the lab report and in principle attend the oral presentation. He/she is responsible for the grade. Upon satisfactory completion of the external research course, both supervisors fill out the document "confirmation external practical course outside the faculties Medicine and Biology of the LMU".
- It is recommended that the external supervisor is habilitated, that means he/she 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.
- It is required to register the internal supervision prior to starting it, please forward the confirmation signed by the internal supervisor to the examination office bpa@bio.lmu.de.

Overview:

• The overview does not replace the text above. Please read the text above carefully.

| Туре | Regulation | Where completed? | Habilitated internal Co-supervisor | Confirmation |
|----------|---|---|------------------------------------|---|
| Internal | At least one research course. | With a person on MHB list or a related lab. | Not necessary. | Upon satisfactory completion: "Confirmation — Internal Research Practical course" |
| External | Only one of two research courses. | Case 1: Outside the MHB list with a habilitated person of the Faculty of Biology or the Faculty of Medicine | Not necessary. | Upon satisfactory completion: "Confirmation – External Research Practical course (completed at the Faculty of Biology or the medical Faculty of the LMU)" |
| | | Case 2: Outside the MHB list and outside of both faculties with an external supervisor | Necessary. | Prior to officially starting: "Confirmation – Internal supervision" Upon satisfactory completion: "Confirmation – External Research Practical course (outside of the Medical Faculty and the Faculty of Biology of the LMU)" |

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.

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