

Guidelines for Degree project, Biomedicine Master's Programme

(Course leader: Ivan Nalvarte, Dept Biosciences and Nutrition, KI)

This guideline document contains important instructions and information for supervisors, examining teachers and students regarding the Degree project.

General aim and the grading process

The final course during the Master's program in Biomedicine is the "Degree project", 30 credit points. Duration of the project is **20 weeks**, which includes writing and presenting the thesis report. During the degree project the student is expected to deepen his/her knowledge in a specific research project and also in the subject area of the project through reading and assessing relevant scientific articles. The student should also participate in group meetings, seminars, journal clubs and other relevant activities at the work place.

Total grades are the sum of individual grades from each of the following items: supervisors' assessment, the written report, the press release, and the oral presentation. The supervisor assesses the performance of the student during the data production and analysis. An examining teacher (KI employed researcher) will assess the written report and the press release. Two examiners will judge each oral presentation jointly.

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Examiners: TBD

Projects

We encourage the students to early on start looking for possible labs for their thesis projects. This can for example be by visiting the home pages of different labs (e.g. found at ki.se), and reaching out to groups of interest.

Performing projects outside KI, at other universities (also abroad), or at companies is **allowed**.

Once a project and supervisor has been found, the student and supervisor should write a ca 2 page project description that needs to be submitted to Canvas on **in mid-December**. A template for this project description form can be found on Canvas. See below for more information.

Note that the thesis project can be performed in the same lab as the research project 1 or reseach project 2, but not in a lab where the student performed *both* research projects.

For supervisors

The roles of the supervisor are to plan the project together with the student, to give feedback and to grade the student according to the assessment criteria, which can be found in Canvas and will be communicated to the supervisor. The assessment form should be submitted to the course leader by email at the end of May. The supervisor is encouraged to provide the student with feedback and suggestions on layout, structure, and content of the written report. **Note that the supervisor(s) should not be involved in the writing of the written report.**

The formal (main) supervisor for the degree project should be a senior researcher or a post-doc. The main supervisor is responsible for securing enough time and resources for an adequate supervision of

the student. It may be recommended to have two supervisors for each project: The co-supervisor should be an experienced PhD student, postdoc or technician that could handle much of the daily practical supervision although the responsibility stays with the formal supervisor. Master students are not allowed as main- or co-supervisors.

The supervisor shall inform about safety regulations and protocols that are in use at the department and the student is expected to follow these regulations.

Regular feedback on the student's performance during the degree project is very important for the learning experience. For the degree project, the supervisor should provide oral feedback and assess the progress together with the student at a time before 10 weeks has passed. Both supervisor and student sign a form, available from the course leader, stating that this feedback session took place. The student shall upload this form to the Canvas course activity. Regular discussion with the supervisor(s) is highly recommended and we encourage the students to summarize the results to the research group at the end of the practical part of the project. However, we urge that the student needs to create the written report **as independent as possible** and with minor help in writing from the supervisor(s). Note that obtained data/results from the master thesis project must be **fully presented** in the written thesis report and at the oral presentation. We will not make the written report or oral presentation publicly available.

Supervisors with a position at KI are offered a bench fee (10,000 SEK) after the student's grades for the degree course are registered assuming adequate supervision and feedback as stated in the guidelines. Thus, we will take care of the financial compensation after the summer holidays. No bench fee will be given to projects performed outside KI. The KI affiliated supervisors connected to a project performed outside KI are not entitled to compensation.

Project description

The supervisor and the student write a project description together. Please use the template "**Master Degree Project Description Form**" for writing the project description. The form can be found on the Canvas portal. The student is responsible for updating the supervisors about the guidelines written in the paragraph "For supervisors" (see above) before submission of the project description. The Supervisor must sign with name and date on the form. It is the student's responsibility that the description is sent via the Canvas portal in due time. The project description should be named in the format lastname.firstname.projdescr.pdf. It is of importance that the project is planned in relation to the time available during the course. Note that we require the project to have a clear research question and contain novel ideas. This means that **projects aiming at optimizing protocols, methods or assays may not be approved**. Also, obtained data/results from the master thesis project must be **fully presented** in the written thesis report and at the oral presentation.

Enough time should be devoted for writing the thesis report and preparing the oral presentation within the 20 weeks of the project.

The project description must be sent via the Canvas portal well in advance of start of the project (i.e. mid-December). The project can only be started after one of the examiners has approved the project description.

For examining teachers

The role of the examining teacher is to read and grade the written thesis report and to provide feedback to the student. The examining teacher is a researcher active at KI. The written thesis reports will be sent to the examining teacher, who will read and comment on the report's *structure and language*, *scientific content*, and *the discussion and motivation*. **We wish the teacher to provide the student with a copy of the report with written comments in the text**, within **one week** after receiving the

report. The examining teacher will also summarize the positive points followed by a couple of items for improvement.

The examining teacher should be available for feedback regarding the written report in order to empower the learning, either by a live face-to-face meeting, or digitally e.g. via Zoom. This is an optional task, should the student request it. The date, time and place for the possible live feedback should be decided jointly between the examining teacher and the student but preferably before the oral presentation.

The assessment form for grading is available in Canvas and will be emailed to the examining teacher. The deadline for sending the assessment form with grades to the course leader (ivan.nalvarte@ki.se) is May 31st.

The examining teacher is entitled to a monetary compensation for the time spent on grading and feedback.

If necessary, based on the grading from the examining teacher and/or examiners assessment it may be decided that the student needs to revise the written report and re-submit it to the course leader as a final version. In such a case, this is required to pass the course.

The written report

The written report should be between 10 to 15 pages (Times font size 12, line spacing 1.5) and should be written in the form of a research publication. The front page, figures, and references are not included in this page limit. In addition, the student should provide an appendix with ethical reflections and reflections on sex and gender perspectives. It is highly recommended to start writing parts of the report before finishing the experiments/data collection.

In addition to the report, the student must write a short press release about the research project. The report and press release should follow the formatting provided in “Instructions for Writing Report and Press Release”, which can be found on the Canvas portal.

Peer-review

The students will act as opponents on each others written reports and oral presentations. In groups of two, the students will provide peer-feedback comments on each others written report (e.g. using comments tool in Word or Acrobat). In order to secure that the feedback has taken place, you need to submit these comments to the Canvas activity. The selection of opponent will follow the schedule of the oral presentations, which will be communicated in May. During the examination, the same opponent will ask questions on the oral presentation then focusing on the interpretation and conclusions based on the data. For instance, the student scheduled to present at 09:00 and the student presenting the same day at 09:35 will be each other’s opponents and so on and this schedule continues throughout all presentation days.

The draft report must be uploaded on Canvas in mid-May. The comments on the fellow student’s report should be uploaded on Canvas a few days later. Files with comments from peer-feedback will be available for download to the students included in the peer-feedback pair. Each student has the opportunity to revise the report according to the comments from the opponent. Note that we cannot allow removal or addition of data after this stage.

Submission of the written report

The revised written report and the press release, named in the format **lastname.firstname.projdescr.pdf**, should be submitted as separate pdf documents via the Canvas portal with set deadline (to allow enough time for the examining teachers to read them).

Note: these are the final versions that will be graded.

Oral presentations

During first days of June the oral presentations of the projects will take place, and all students must attend both days of oral presentations. We will have 2 concurrent examination sessions and the students are welcome to alternate between these sessions. A detailed schedule will be available via Canvas and email. The students should present the results of the project in the presence of fellow students and examiners according to the schedule. Please prepare for **20 minutes presentation** with visual support (pdf or PowerPoint slides verified to work on Windows OS). A subsequent **15 minutes discussion** will follow with questions from the opponent student (see above), followed by questions from the fellow students and finally by questions from the examiners. The oral presentations **are not publically advertised**, and the presentations will not be distributed outside of the course. However, examining teachers, supervisor(s), and family members are welcome to attend the presentation. **Note that much of the data presented are not published, and it is therefore not allowed to take photos.** The examiners will evaluate the content and structure of the oral presentation and the student's ability to answer questions from the opponent student. The examiners may also ask questions related to the project.

Coffee/tea and lunch sandwiches will be available for all students. Please notify course administrator Anna Wallén (anna.wallén@ki.se) about allergies. For guests, coffee/tea will be available.

Grading

The grading of the Degree course is based on combined evaluation of the written report (examining teacher), the practical and scientific skills (supervisor), the press release (Prof. Robert Harris, KI) and the oral examination (examiners). The assessment forms for grading can be found in the Canvas portal.

Note that assessment points 6-7 needs to fulfill at least the pass (sound) criteria in order to pass the course. Students with a failed written report must revise and re-submit the report for grading after feedback from the examining teacher and the examiner. **A prerequisite for grade pass with distinction is that the written report is submitted in due time before the deadline.** Any problems with submission of the written report must be reported to the course.