Standard Operating Procedure ("SOP")

Degree projects 15/30/45 hp,
Master programme in Biology and Applied Biotechnology

Course codes: Biology: 1BG327, 1BG328, 1BG362, 1BG329
                      Applied Biotechnology: 1BG353, 1BG354, 1BG355

This SOP is valid as of October 1, 2015.

Basic information

Applicability

- This SOP applies to degree projects within the Master programmes in Biology and Applied Biotechnology.

- The complete, comprehensive course information is available via the course web pages (www.ibg.uu.se/student-en/Degree+projects/) including this SOP, formal course plans, complementing additional regulations and documentation, application form, specific information for supervisors and coordinators etc.

- The SOP is principally directed towards the student doing the degree project, but the supervisor is also recommended to read the full SOP (in addition to documents specifically intended for the supervisor)

Goals and conditions for degree projects

The complete Course Syllabuses (course plans) presenting the expected learning outcomes of the courses are available via the course web page (see links above).

Elaborating on additional aspects of doing a degree project:

- The degree project provides training for the student in planning, carrying out and reporting independent work, in project format and under time constraints. In addition, it provides contacts to research and development.

- The degree project is a course that has a start and an end, according to a time plan agreed upon by the student, the supervisor and the coordinator before the work is commenced. When the end of the allotted time is reached, 10 weeks for a 15 hp project, 20 weeks for a 30 hp project and 30 weeks for a 45 hp project, the work should be completed and reported, and the written report handed in.

- As indicated above, the primary purpose of a project is taking part in the process involving independent planning, executing and reporting a study, which may or may not produce significant results. "Failures" can be very informative, and equally well worth reporting as "successes". When searching for new knowledge, one is never assured of success within a given time. There is no automatic connection between the quality of the work and the

amount of significant results in the final report. However, there is a clear connection between quality thinking and the ability to stick to a (albeit revisable) plan with given time frames!

- If both the student and the supervisor so wish, nothing prevents the student from continuing in the project (although in another format) after concluding the degree project course.

The actors and their responsibilities

Below follows short overviews describing the various people involved during the degree project. Complementary, more detailed information, is also provided on the course web pages and further on in the present SOP.

The student
The student finds a supervisor/work-place for the degree project. Furthermore, makes sure to be knowledgeable about the rules and routines for the thesis course and compiles the application together with the supervisor.

The student should document the work well, regularly inform the supervisor about the progress and discuss possible problems encountered. The student has the main responsibility for the mid-term presentation and for writing of the preliminary version of the final report before 1) making it available for the supervisor to give feedback and suggestions about improvements, 2) after revision based on supervisor feedback sending it to the student opponent so they may prepare additional feedback on the report and opposition at the final oral presentation (see pages 5-7 for more detailed information about the procedure).

The supervisor
The supervisor needs to be well aware of the routines and rules that apply for the degree project, through the course home page, the present SOP, additional documents and/or oral communication with the student and coordinators. The supervisor writes, preferably in collaboration with the student, the plan for the degree project, including a preliminary time plan for the work, as well as fills out and signs certain parts of the application form. During the project the supervisor supports the ongoing work, offers recurring supervision (feedback) and helps the student to stick to the time frames for the project. The supervisor should be an active researcher at the work-place and see to it that the student working conditions are such that the project can be implemented as planned. For further and formal details, see the separate document "Instructions for supervisors". The supervisor also fills out, signs and sends to the coordinator an approval of the final report, as well as supplies a detailed assessment of the student performance (on a certificate form for this, available on the course web pages) before the student is permitted to do the final oral presentation.

The student opponent
Reads the final report (after initial revision based on the supervisor feedback) and prepares for opposition in conjunction with the final oral presentation. Additional comments about the written report can preferably also be provided by the opponent to the responding student, on paper or orally, in connection with the final presentation or via personal contacts on a different occasion.

On the same (or a different occasion) you in turn act as the opponent for at least one fellow student presentation – note that this is also a mandatory part of the course and you need to have passed this in order to pass the course as a whole!

Additional opposition and feedback on the report will also be offered by external opponents, i.e. senior PhD students or post docs in relevant areas at the research departments at Uppsala University.

Coordinator/examiner

The coordinator/examiner at IBG among other things has the following obligations:

a. Approves the degree project application and (if all paperwork is in order) sees to it that the student gets registered for the course. Is formally responsible for approving and appointing the supervisor and may at times also function as an external contact and support for the student during the project.

b. Assesses the mid-term report and presentation (both written and oral parts) and gives feedback on the running project as well as the (revised) time plan on this occasion.

c. Takes part at and assesses the final oral presentation

d. Performs the final assessment of the written report (after the revisions based on supervisor, student opponent and additional opponent feedback have been done) and reports the result to the course administrators at the Biology Education Centre (IBG).

Practical information

Before you start your degree project

- Read the applicable course plan and all the information available via the course home page (links to the web pages are provided above), including the present SOP. See to it that you get an overall picture, not only of your own obligations but also of the other players involved. If you are using a printed version of the SOP, check on the course web page so that you indeed have the most recent version, as it gets updated every now and then. The most recent, valid one is always accessible via the web.

- Contact the coordinator handling degree projects in your master programme, at least a month before you want to start, but preferably even earlier than that.

- Note that **all formalities** (registration, etc.) **must be completed BEFORE you start**. One reason for this is that the accident insurance that covers all actively studying students will be activated only after your registration is complete.

- Note also that it is not possible or allowed to register an already started as a degree project in retrospect.

How do you find a degree project?

- In principle it is your own task to find a suitable project! Contact departments with projects in your area of interest and talk to potential supervisors (senior researchers). Web pages are a good source of information. Do not hesitate to contact several departments and several people. There are plenty of projects and people who wish to take on degree project students. Authorities and companies are also suitable for degree projects.

- If you have no ideas, talk to teachers, senior students and people working at companies and administrations. Talk also to your coordinator, who can possibly give suggestions. You can also look at published degree projects (www.ibg.uu.se/student-en/Degree+projects/) to see what other students have done. You are also welcome to explore the IBG project offer database (www.ibg.uu.se/student-en/project-offers/).

- When you have decided what you want to do, immediately inform all involved parties of your decision! Not least those that may have offered you a project that you decline.

Applying for a Degree project course

- Direct your supervisor and make him/her aware of the information concerning degree projects available at the IBG web site. Your supervisor and you should write a brief project plan describing your proposed project.

- Fill out the application form (available at the IBG web) together with your supervisor, and sign it.

- Hand in the application, the appended project plan and your study documentation (documenting that you meet the prerequisites for the course) to the appropriate coordinator (Biology: www.ibg.uu.se/student-en/programme-pages/master/master-programme-biology/degree-project/; Applied Biotechnology: www.ibg.uu.se/student-en/programme-pages/master/master-programme-applied-biotechnology/degree-project/).

- When the application has been approved by the coordinator, you will become registered on the course and you can thus start the degree project. Note! You may not start your degree project before you are registered.

Re-registration for a second semester

- If your degree project spans over more than one semester (or into the summer) you must be re-registered at the start of the summer or the new semester.

- Contact one of the course administrators at either of the IBG offices and ask them to have you re-registered.

Midterm report

- If you do a degree project of 30 hp or more you should do a midterm report. The midterm reporting may entail both a short written report and a short oral presentation. Your coordinator will give you additional instructions for this. Make sure you know what applies to you!

- If possible, also students doing degree projects of 15 hp give a midterm report. Your coordinator will inform you further if this applies to you or not.

Final written report and popular science summary

- At the end of your project, you must present a written scientific report and a popular science summary. Both are published on the IBG web site.

- You can find general guidelines for scientific reports in the document "Presenting science" (available at the web site and in printed version at the IBG offices). Your coordinator may also provide further guidelines for how to prepare the report.

- A piece of very good advice is to start writing early; writing takes time!

- Your supervisor must approve the scientific content of your report before you hand it on to your opponents and the coordinator/examiner.

- The approval of the report from the supervisor is also a prerequisite to be allowed to give the final oral presentation.

Urkund

- All reports are analysed via the plagiarism control system Urkund.

- The specific Urkund mail address will be provided by the coordinator. The document will thus

pass the Urkund database and possible copied pieces of text will be identified by comparison to the extensive Urkund text database.

- **Note! Important exception:** If your supervisor considers the report confidential you should **not** send it via Urkund!

- More information about the Urkund system is available from the IBG web site.

Secrecy

- If necessary, thesis reports can be kept secret according to the Law of Secrecy (In Swedish: Sekretesslagen 8 kap 9 §. Prejudikat 1985, Regeringsrättens årsbok s. 714 "Den av institutionen åberopade sekretessen enligt 8 kap 9§ sekretesslagen tar främst sikte på att skydda enskilds ekonomiska intressen. Den gäller för olika typer av uppdrag som myndighet utför för enskilds räkning, om förhållandena är sådana att det måste antas att uppdraget lämnats under förutsättning av sekretess.") If confidentiality is applicable in your case, please ask your supervisor or coordinator for further clarifications and explanations as required.

- Please provide clear information should your report need to be kept secret! Information on how long the report should be kept secret must also be provided.

- A closed presentation can be arranged for particularly sensitive degree projects.

- A simpler solution is that crucial names and procedures are excluded from an otherwise public version of the report. In such cases the coordinator must be allowed to read the complete report (after signing appropriate secrecy documents).

- There are advantages and disadvantages of doing a project that must be kept secret. Such projects can concern ideas that have not yet been patented, or will be published in a scientific journal. A disadvantage is that your option to include this work in the portfolio you show when interviewing for jobs may be restricted. If you accept to carry out a secret project you can ask your advisor to set the time of secrecy as short as possible. Also ask to what extent you can show the work during the period of secrecy, for instance as a sample of your work when looking for a job.

Oral presentation of your degree project

- All degree projects must be reported orally at the Biology Education Centre as specified by the coordinators.

- Prepare a short presentation (c. 20 minutes, coordinator will give detailed instructions).

- At your final presentation one student will act as your opponent together with an external opponent.

- You will act as opponent for one of the other students presenting on the same (or a different) occasion.

- Your coordinator will provide further information concerning the opposition procedure.

- After your presentation there will be a discussion initiated by the student opponent and the external opponent. Additional written or oral feedback on the written report can preferably be supplied to the respondent in direct connection with the presentation.

Report at your place of work

- When doing the degree project outside the university, it is desirable (although not mandatory) to give a seminar about your project at the workplace.

Final steps

- After the oral presentation you should do the final revision of your report, taking into consideration the feedback (oral as well as written) from your opponents and others in the audience.

- The coordinator acts as the final reviewer and editor of your written report and popular science summary.

- After the final revision and adjustments your coordinator will ask you to convert your complete report into a pdf file and include the appropriate title page prepared via the form available at the IBG web site. The popular science summary should be converted to a separate pdf file.

- The coordinator will publish your complete report and the popular science summary at the IBG web site. (Exceptions are of course made for secret reports.).

- The student should upload the final report to DiVA, the UU library database for open access publishing of scientific publications.

- The report is archived also in paper format at the IBG. You yourself are entitled to obtain three bound copies of your report from IBG if you ask your coordinator for this at the time you hand in your final version.

- The coordinator/examinator reports the passed result to IBG, and the course credits are registered in Uppdok.