UPPSALA
UNIVERSITET

Standard Operating Procedure "SOP"

Master's programmes in Biology and Applied Biotechnology

Degree projects 15/30/45/60 credits

Course codes:
Biology: 1BG327, 1BG328, 1BG362, 1BG329, 1BG358

Applied Biotechnology: 1BG353, 1BG354, 1BG355

This SOP is valid as of May 21, 2019.

Basic information

Applicability

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

The complete, comprehensive course information is available via IBG web pages (Applied Biotechnology) (Biology) including this SOP, formal course syllabi, complementing additional regulations and documentation, application form, specific information for supervisors and coordinators.

The SOP is directed towards students, but the supervisor is also recommended to read the full SOP (in addition to the document specifically intended for the supervisor).

Goals and conditions for degree projects

The course syllabi (course plans) presenting the expected learning outcomes of the courses are available via the 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 under time constraints. In addition, it provides contacts with 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 starts. The allotted time is 10 weeks for a 15 credit project, 20 weeks for a 30 credit project, 30 weeks for a 45 credit project, and 40 weeks for a 60 credit project. The exact number of weeks may differ from this, and is governed by the dates for the oral defence.

The work should be completed and a written report submitted and approved by the supervisor and coordinator before the oral defence.

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!

A **60 credit** degree project is offered for master students in Biology. This includes the writing of a longer (5-10 pages) research plan, worth 5 credits. It is the responsibility of the student and supervisor together to finalize this.

The actors and their responsibilities

Various people are involved during a degree project and it is important that all know their responsibilities.

The student

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

The student is responsible to write, in collaboration with the supervisor, a project plan (1-2 pages) including theoretical background, hypotheses or ideas, tentative methods (including statistical analyses if relevant), a time plan, and references.

For a 60 credit degree project, the student, together with the supervisor, should also write a longer (5-10 pages) research plan during the first weeks of the degree project.

The student should document the work well, regularly inform the supervisor about the progress and discuss any encountered issues or problems. The student has the main responsibility for the mid-term presentation and for writing a preliminary version of the report. It is also the responsibility of the student to finish the work within the given time frame.

The student is also responsible for making a final oral presentation and for acting as an opponent (see below).

When the final version of the written report is approved by the coordinator the student uploads this at the DiVA portal.

The supervisor

The supervisor needs to be well aware of the routines and rules that apply for the degree project, through the present SOP, Instructions for supervisors and the relevant course

syllabus and by communicating with student and coordinator. The supervisor fills out and signs the application form together with the student.

During the project the supervisor supports the ongoing work, offers recurring supervision (feedback) and helps the student to stick to the time frame.

The supervisor should make sure that the student's working conditions are such that the project can be implemented as planned.

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 (using the form available on the web) before the student is permitted to do the final oral presentation.

For further and formal details, see the separate document Instructions for supervisors.

Student opponent

Reads a written report by a fellow student and prepares for opposition in conjunction with the final oral presentation. After the presentation the opponent initiates a critical discussion by, *e.g.*, asking for clarifications and explanations. Written comments on the report itself are also recommended, *e.g.*, by using the DiaNa template for feedback. These can be handed in a little later.

This is a mandatory part of the course and the student needs to have passed this in order to pass the course.

External opponent

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

Coordinators and examiners

For all degree project courses at IBG, the coordinators also act as examiners. The coordinator has, among other things, the following obligations:

a. Approves the degree project application and (if all paperwork is in order) sees to that the student gets registered for the course.

b. Is formally responsible for approving and appointing the supervisor and may at times also function as an external contact and support for student and supervisor during the project.

c. 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.

d. Takes part at and assesses the final oral presentation.

e. Makes the final assessment of the written report (after revisions based on feedback from supervisor, the student and external opponents) and reports the result to the course administrators at the Biology Education Centre (IBG) and register the result in Ladok.

Practical information for you as a student

Before you start your degree project

Read the applicable course syllabus and all the information available on the web, 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.

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

Note that **all formalities involved in the registration must be completed BEFORE you start**. One reason for this is that your insurance will be activated only after your registration is complete.

Note also that it is not possible or allowed to retrospectively register an already started degree project.

How do you find a degree project?

It is your own task to come up with a suitable research idea! To test your ideas, 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 researchers who wish to take on degree project students. Authorities and companies are also suitable for degree projects.

Talk to teachers, senior students and people working at companies, governmental institutions, and NGO's (non-governmental organisations). Get in touch with your coordinator, who can possibly give suggestions. You can also look at published popular summaries of earlier degree projects to get inspiration. Don't forget the IBG Project Offers database.

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

Applying for a Degree project course

Show your supervisor the information concerning degree projects available at the IBG web site.

Your supervisor and you should write a brief project plan together describing your proposed project. Fill out the application form (available at the IBG web site) together with your supervisor, and sign it.

Hand in the application, project plan and your study documentation (documenting that you meet the prerequisites for the course) to the appropriate coordinator.

When the application has been approved by your coordinator, you will become registered on the course and you can start the degree project. Note that you cannot start

your degree project before you are registered.

Midterm report

You must do a midterm report. This most often includes 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, including a title page, a summary and a popular science summary. The latter will be published on the IBG web site, and you will yourself upload your report to DiVA.

You can find general guidelines for scientific reports in the document "Presenting science" (available also as a printed version at the IBG offices). Your coordinator can 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 (or your coordinator) hand it on to your opponents and the coordinator.

In most cases, the approval of the report from the coordinator is a prerequisite for being allowed to give the final oral presentation. Check with your coordinator!

Urkund

All reports are analysed using the plagiarism control system Urkund.

The specific Urkund mailing address will be provided by your coordinator. Do not send your report until you have got this address from your coordinator!

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

Secrecy

If necessary, thesis reports can be kept confidental 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.")

There are advantages and disadvantages of doing a project that must be kept confidental. 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 being interviewed for jobs may be restricted. If you accept to carry out a project of this kind you can ask your supervisor 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.

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).

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 confidental. Information about the time of secrecy must also be provided.

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

A popular science summary will always be made public.

Oral presentation of your degree project

All degree projects must be reported orally during a final presentation session at the Biology Education Centre.

Your coordinator will provide further information concerning the opposition procedure.

At your final presentation one student will act as your opponent together with an external opponent. Also, you will act as opponent on another project presenting at the same (or a different) occasion.

After your presentation there will be a discussion initiated by the student opponent and the external opponent. You have the opportunity to revise your written report using the written and oral feedback from your opponents.

Report at your place of work

If you are doing your degree project outside the university, it is recommendable that you give a seminar about your project at the workplace.

Final steps

After the oral presentation you should make final revisions to 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 document and include a title page prepared via the form available at the IBG web site. The popular science summary should be converted to a

separate PDF document.

The coordinator will publish your popular science summary at the IBG web site. Exceptions are of course made for confidental reports.

You must yourself upload the final report to DiVA, the UU library database for open access publishing of scientific publications.

You yourself are entitled to obtain three bound copies of your report from IBG if you ask your coordinator for this at the time when you hand in your final version.

The coordinator reports the result to IBG, and makes sure that the course credits are registered in Ladok.