

Project work 10 hp, 15 hp and 30 hp

Instructions September 2015

Biology Education Centre

Start with this

- Read the course plan and the general information provided on the course pages at the Biology Education Centre (IBG) web pages (www.ibg.uu.se) - www.ibg.uu.se/education/courses-programmes/all-courses/1BG366-7-8/
- Important! Read these instructions carefully.
- Important! See to it that your prospective supervisor early on gets hold of instructions and other relevant information about the course.
- Note that application, admission and registration for the course all need to be cleared and finished before you may commence the course.
- It is never possible to register a holiday work or similar as Project work at a later time. It is also not possible to get credits afterwards for a project work as a degree project.
- Formal requirements to be eligible is 120 hp (higher education credits) containing *either* 60 hp biology as well as 30 hp chemistry or 30 hp earth science *or* 90 hp biology.
- The three courses cannot be combined into a more extensive course. On the other hand it is in principle possible to do more than one Project work on different occasions and at different workplaces.
- Coordinator for the course is Katariina Kiviniemi Birgersson (E-mail katariina.kiviniemi@ibg.uu.se, Phone 018-471 48 35)

Purpose of the course

- The aim of the course/courses is to give insight into and basic knowledge about how project work is pursued. You get the opportunity to, under supervision, as far as possible independently plan, implement and present a delimited work in project format.
- Optional places for Project work are research departments and institutions, companies or authorities within relevant subject areas. It can be done in the form of a general investigation, research or development work. During the course you are expected to 1) delimit and plan for the intended project, 2) search for, evaluate and critically compile already available information in the field, 3) chose appropriate methods for your survey, 4) carry out your investigation as well as interpret and evaluate the

obtained results, 5) in a relevant way, orally and in writing, present the obtained results.

How to find a good place for a Project work

- Chose something you are interested in.
- There are no explicit “Project work places”. Instead it is up to your own interest to take necessary initiatives and personal contacts to find a good place for your work.
- If you are not sure about your own interests, talk to teachers/researchers and contact companies and see what they may be able to offer. You may check our project database (www.ibg.uu.se/student-en/project-offers/) and possible other relevant collections of offered projects. See also information about biology research at Uppsala University (www.ibg.uu.se/research/research/).
- There are lots of periodicals in the library, or on-line via the library web pages, with scientific publications from academic institutions and departments as well as companies. There you may also find direct contact information, with names and addresses to interesting researchers and groups.
- You can also search in databases such as Medline, other literature databases or the Internet.
- Project work can be performed at academic institutions and departments, companies or authorities and agencies provided that they have biology or biotechnology as part of their sphere of activities.

If you apply for Project work abroad

- Write a letter to a responsible person at the intended workplace where you introduce yourself and tell them who you are, what you have studied, what it is you want to do, when you want to do it and who pays for e.g. travel, accommodation and boarding. Also tell them who coordinates the research training at Uppsala University. It is also a good idea to attach a portrait photo of yourself.
- Be sure to attach a list of qualifications, resume or Curriculum vitae. If you are not sure what it should contain, search for “curriculum vitae” on the web.
- Describe the education programme you are taking at Uppsala University, e.g. as “Master programme in biology” or “...in biotechnology”.
- Important! Make sure you have an insurance which covers also your time abroad. Contact Eva Damm at Biology Education Centre (IBG) for more information about this.

Good and clear communication

- It is very important that the student and supervisor try to be as clear as possible in their communication while discussing a possible project work – in order to avoid misunderstandings. Even if you should not necessarily choose “the first one”, be open and clear to alternative supervisors about your commitment, so nobody believes you have decided if you in fact have not. Expect and ask for the same clarity and transparency from the supervisor!

Once you have found a good workplace/supervisor

- Contact Katariina Kiviniemi Birgersson who is the coordinator for Project work.
- The course can in principle be carried out any time of the year but application and registration need to be done during spring or fall term/semester times (or at least in close connection with them). You apply for the course on a specific application form that you can get from the course pages at the IBG web (www.ibg.uu.se/education/courses-programmes/all-courses/1BG366-7-8/), or from one of the coordinators.
- Fill out the application form along with your proposed supervisor. The supervisor must have become acquainted with the specific information for supervisors but preferably also with the additional general information about the course that is available on the course web page. Note! Along with the application should be attached a matriculate/transcript of records as well as a plan for the proposed project. The plan is written in consultation with the supervisor, but the more you get involved already at this stage, the better. The plan should contain a short theory background for the field, specifics about what you intend to do during the present project as well as a time plan for the project; for instance as a graphical illustration in the form of a Gantt-scheme or similar.
- Please observe that there are on the web “Instructions for supervisors” as well as “Supervisors certificate and opinions”. Give both of these in good time to your supervisor! They should be read and filled out by the supervisor respectively. The latter should be sent to the course coordinator once the Project work is finished.
- When a complete and correctly filled out application with all supplements has been handed in you are admitted to the course (provided of course that you are eligible). The coordinator will then register you for the course and you may commence your Project work.

Differences between the 10 hp-, 15 hp- and 30 hp courses

- For approval and passing of all three courses, an active participation in the planning and follow-up of the project as well as an oral presentation at your workplace and a written report are required.
- The student input, scope and extent for all of the above items is of course influenced

by where the training is done, the interests of student and supervisor, the subject and topic as well as the varying lengths of the courses. The more you can contribute to all of these things the better, and the more you will learn! - not only about the field you are studying but also about general aspects on how project work is pursued.

- A possible recommended extent for the written report is roughly: For 1BG366: 5 - 8 pages, 1BG367: 6 – 10 pages and 1BG368: 8 - 15 pages.

The theoretical foundation

- You and your supervisor agree on suitable literature.
- The literature could be for instance 5-10 scientific articles, book chapters or similar. The amount and scope of the material is of course influenced by for instance the topic, where the work is performed and by the length of the Project work.
- It is recommended that you also take the opportunity to search and survey the literature on your own, at least to some extent (the earlier in the project the better!). This may bring in external views on the project and provide valuable training on searching for information and critically evaluating it.
- Remember to take notes during you project, regarding both experiments and general things. This makes the writing of the report and preparation for the seminar much easier. The supervisor also appreciates if you take notes and keep a tidy record of your experiments and results.
- You are expected to, in addition to the subject related literature, also read some general text about working in project format. The course literature is either “Handbook for small projects” (Joakim Lilliesköld & Mikael Eriksson, Liber AB, Stockholm, ISBN: 978-91-47-09965-8) or specified chapters from “Project Management” (Bo Tonnquist, Bonnier Utbildning AB, Stockholm, ISBN: 978-91-622-8916-4). More information about this part is given by the coordinator.

Presentation and follow ups

- You must present your project work in the form of a seminar at your workplace. The form for the seminar is jointly decided by you and your supervisor.
- In the process of applying for the course you agree with your supervisor and the coordinator on a suitable schedule for the follow ups during the project. Depending on where the project is done and its form it can be more or less important with follow ups, not only with your supervisor but also with the course coordinator. The latter is particularly important for the longer project work. So decide together with the coordinator on how best to do the follow ups already when you apply for the course! Once the project is running, you are then expected to get in touch with the coordinator for possible follow ups according to the agreement you have made!

The written report

- Start writing well in time!
- Leads and good general instructions can be found in the IBG booklets “Presenting science” and “How to use scientific sources...” (check “Handbooks”:
<http://www.ibg.uu.se/student-en/>)
- Important! Ask for the supervision you need, also during the process of writing the report.
- You may write the report in Swedish or in English. Keep in mind that the language is very much your tool while writing the report. Therefore, take good care of the disposition, wording, grammar and spelling.
- The report should be written following a generally accepted format for a scientific report within the field under study. Possible suitable subdivisions could be:
 - A title
 - Names of student and supervisor, their affiliations, where the work was performed and which course it was part of
 - Abstract
 - Introduction
 - Materials and Methods
 - Results
 - Discussion
 - Acknowledgements
 - References

or similar. It is sometimes adequate and appropriate to have a joint Results and Discussion section for instance.

- Take good care with references, figures and tables. Note that you are expected to explicitly refer to all figures and tables in the running text. In addition, the figures should have legends with figure number, a title and explaining text. Tables should likewise have a title and possible explanations to make them easily intelligible. It is strongly recommended that you study the instructions in ”Presenting Science”.
- Be consequent about how you give references, both when cited in the running text as well as how they are given in the reference list!
- State the source for each figure and table that you did not make yourself. Citing is allowed but not plagiarism.
- Sources for electronic media should be given stating type of media, address and date when the information was retrieved. Apart from this, see to it that they fit into the general way the references are given in the reference list as closely as possible (see “Presenting Science”).
- Layout: Give the final report a separate title page (use the template on the course

web page), possible blank page(s) and pagination so it looks nice and proper in double sided printing. Possible pagination: centre or alternate left / right; include title page (page 1) when counting the pages but do not display the page number on the title page.

- Note! Your supervisor will read and give feedback/comments on your report. It is important to rework the report with appropriate consideration to the comments from your supervisor. Your supervisor must approve the report.
- In addition to the scientific report a popular scientific summary should be handed in along with the formal report. Around one page maximum is sufficient – making it short, intelligible and informative for the public is an important task in itself. Write as if you were addressing biology students who just started their Bachelor studies.
- Lastly, an analysis and evaluation of the project itself is also demanded (think in terms of questions like: were the goals of the project appropriate?, ... realistic?, ... fulfilled?, etc.). This can be handed in as an appendix to the main report or possibly as a separate short report. About 1-2 pages will suffice. It should contain a short overall description of the project, how the continual follow-ups were performed, if/how the project plan was developed/revised, overall recommendations about how the project could be pursued and improved in the future, etc. In this part of your report you should try to set your thoughts and observations in relation to things you read about in the course literature about project work (see course literature under the heading “The theoretical foundation”).
- You submit the approved report, the popular scientific summary and the evaluation of the project itself via URKUND, as e-mail attachments in pdf or possibly word format. You obtain the Urkund e-mail address from the course coordinator. The document will thus be sent past the database and possible copied text will be noticed and highlighted by comparisons with the extensive Urkund text database. **Note! Important exemption:** If your supervisor confirms that the report should be kept confidential you should **not** send it via Urkund but directly to the coordinator’s regular e-mail address!

Reporting

- The supervisor fills out the certificate about when the various course items are accepted and along with this gives detailed opinions about your performance. After that the supervisor sends this to the coordinator at Biology Education Centre (IBG), Uppsala University.
- The written report, approved by the supervisor, the popular scientific summary and the evaluation of the project are sent to the coordinator via URKUND for assessment, *except* in the case that the supervisor considers that information in the report is required to be kept confidential. Be careful to check with your supervisor what applies! When both report and signed certificate has been sent to the coordinator you

may be considered having passed the course. The coordinator reports the result to Uppdok.

- The course as a whole is assessed with either of the two final judgements *not passed* or *passed*.