

Course analysis for BB200X "Degree Project in Biotechnology, Second Cycle, 30.0 credits", 2020

Background

This course was started in 2016 by Maria Humble, and it was run for a small number of students (five) during spring 2016. In late 2016 Peter Savolainen and Qi Zhou jointly took over the roles as course responsible and examiner. In 2017, 2018 and 2019 the number of students were 19, 28, and 46 respectively, and in 2020 this number has increased to 56. The course currently has four course responsible and examiners, Peter Savolainen, Qi Zhou, Yves Hsieh and Patrik Ståhl.

Course Analysis 2019

The course was run in 2020 for 56 students. For this round of course analysis the evaluation form was answered in person, non-anonymously, via an online form.

Below is a summary of the course evaluation given to the students. At each section, after summarising the student comments (where applicable), we also give our own comments and conclusions under a red heading "**Our comments:**". Further, at the end of the course evaluation is a section headed "**Our final comments and conclusions, and further plans:**". These comments constitute our course analysis.

Course evaluation BB200X

The goal of this evaluation is to get information from you to improve the course in the future. Your opinion is especially important for us!

Please note that we want to hear your opinion primarily about the course format, not about the actual project and supervision. At the end of this form there is an open question where you can relate your opinions also about the project and supervision.

Our comments:

We have received 41 evaluation forms by implementation of course evaluation online as a task in Canvas.

We present below all the comments offered by the students in their course evaluations together with our comments.

1. To what extent do you think you have achieved the stated course goals?

24 Very large 13 Large 4 Fair Small Very small

Our comments:

Most of students believed they had reached the course goals to a very large or large extent, 37/41 (90%). Thus, the course has been generally successful. The outcome correlates very well with the evaluations from the supervisors, which are very positive. We examiners also find the theses to have a generally high quality this year, despite the complications created by the Covid-19 pandemic.

2. How many working hours per week have you spent on the course and your project?

<35 3 35-37 17 38-42 15 43-45 6 >45

Our comments:

Most students have spent more than 40 h per week except for three who spent 35-37 h. This is also reflected by the excellent outcome of the final master thesis reports of the students. Again, some complications were created by Covid-19, but the students seem to have coped surprisingly well.

3. To what extent do you feel that you understood how the course was organized and what you were expected to do.

8 Very large 19 Large 12 Fair 2 Small Very small

Our comments:

Out of 41 students, 27/41 (66%) think that they understood the course information to a large/very large degree, and 14/41 (34%) only to a "fair-very small" degree. This is a lower result compared to the previous year 2019. We believe that the Covid-19 pandemic has created additional confusion as several students had to change the master's thesis from being abroad to being in Sweden instead. Also, we will update the course PM and course PM supplement for next year. The information meeting for BB200X was organized by the student office and was given in May. Some students missed the information meeting due to international exchange. The PowerPoint slides of the info meeting was published on the Master Programme homepages on Social, as well as on the BB200X homepage on Social. From next year, we will record the information meeting and published it together with the slides.

4. What do you think about the general format of the course, with start-up meeting, half time meeting and oral presentation/opposition? Was this a good format? Could it have been performed in a better way?

Summary of replies:

Pros:

- Good format.
- Good to meet with examiners throughout course.
- Start-up and half-time meetings felt necessary.
- Availability of Zoom when required due to Covid-19 pandemic

Cons:

- Some additional confusion due to Covid-19 pandemic this year.
- Zoom-format made half-time meetings feel more stressed in some instances
- Lack of physical interaction shows in urge to interact more with examiners/main supervisor (when external thesis work)

Our comments:

We are very happy that essentially all 41 students liked the course format. The students mentioned the above Pros and Cons regarding the format of the course. We will keep the course format. The main difficulties seem to have arisen as a consequence of lack of physical interaction and direct feedback. Some students requested additional interaction with the examiner/ main supervisor (when external thesis work). Hopefully things will normalise from the middle of 2021. Until then our intent is to be even clearer in the student interactions, start-up meeting and half-time meetings, and also explicitly invite the students to ask any questions they may have, to make sure any confusion caused by the lack of physical interaction is minimized. Thanks to the course format however, the students were in general able to complete the course with far less complications than we feared could be the case at the start of the pandemic in early 2020.

5. Do you have any comments about the project plan?

Summary of replies:

Pros:

- Good tool!
- Helpful to organise the project early on

Cons:

- Some parts of project plan 2 felt unnecessary or forced
- More feedback would be nice
- More instructions/examples of what to include

Our comments:

Most students consider the project plan as a valuable tool, however they find it to be too extensive, especially part 2, which they found included some areas, ie SWOT, business case, which felt a bit forced to write about. This year we also increased the time the students had to create their first version of the project plan. This seems to have been effective, since no students complained about having too short time to finish the first version of the project plan.

We would like to keep the extent of the project plan intact, the main reason being that the students are expected to learn the tools of project and time management as a part of the course, as stated in the Intended learning Outcomes (ILOs) of the course. While updating the course PM for next year we will also look at exemplifying some of the contents, especially in part 2, of the project plan.

6. What were the strengths of the course?

Summary of replies:

Pros:

- Opportunity to plan one's own work, shape your project
- Student's responsibility, project management
- Course layout, course structure
- Examiners involved throughout, helpful
- Very helpful examiners and main supervisors
- Well organized, structure, time plan
- Clear goal
- Well handled situation due to Covid-19

Our comments:

We are very happy to see that the students appreciated their ability to shape and manage their project, and that they liked the course structure. Also very happy to see that the students feel that the Covid-19 pandemic was coped with in a good way. We

are also very happy that the students appreciated the interaction with the supervisors and examiners.

7. What were the weaknesses of the course?

Summary of replies:

Cons:

- Too limited time
- Too strict time period
- Better coordination between internal and external supervisors (when applicable)
- Clearer Course PM, eg regarding Swedish and English abstracts
- Examiners could follow up more due to Covid-19
- Zoom meetings OK but not desirable
- Total lack of information how to apply
- Start-up meeting in spring the year before was missed by students being abroad

Our comments:

The thesis is conducted as a course which is defined by time constraints equal to 30hp. For next year we will revise and clarify the course PM as requested by some students. Some course activities had to be carried out on Zoom this year which removed some of the interaction between students and examiners, but the result was still better than originally feared, and we find that Zoom became a useful tool during circumstances such as the current Covid-19 pandemic. A few students being abroad in the spring the year before the course start did not attend the start-up meeting. For this reason they state that they did not know what to do or how to apply and were very stressed by this. As indicated previously, some students missed the information meeting due to international exchange. The PowerPoint slides of the info meeting was published on the Master Programme homepages on Social, as well as on the BB200X homepage on Social. From next year, we will record the information meeting and published it together with the slides. We will reach out to the students via the student office and encourage students to contact us examiners with any questions they might have.

8. Do you have any suggestions for how to improve the course?

Summary of replies:

Suggestions:

- Update course PM
- Clearer instructions
- Later information meeting (ie in the fall before the course starts)
- Mandatory contact with KTH supervisor
- More info given to external supervisors
- More interaction between examiners and students

Our comments:

The overall effect from the Covid-19 pandemic is quite clear in the comments for suggested improvements. The instructions could be clearer, there could be more mandatory interactions between all parties. If the pandemic persists we will try to make sure that all students get more frequent interactions with their main supervisors and examiners, to make sure they are all doing well. Nevertheless, considering the onset of the Covid-19 pandemic shortly after the course started we are happy that the students were able to complete their projects as well as they did. This situation has given us extensive experience of the online-only scenario, and it is clear that online-only teaching/examining/supervision requires more frequent interactions than when teaching/examining/supervising in person, in order to achieve the same feeling security, comfort and clear direction, which is the goal of the teaching/examining/supervision elements of this course.

9. How was the overall quality of the course?

24 Very good 12 Good 3 Acceptable 1 Fairly poor 1 Poor

Summary of replies:

Overall very nice.

Some students felt that the Covid-19 pandemic had a negative impact on their impression of the course.

Our comments:

36 out of 41 students felt the overall quality of the course was good or very good. We will continue to clarify the requirements of the course, and to reach out to the students well in time for their application deadline. The course Canvas page is publicly available and all information is made available there.

If the pandemic persists we will also make sure that more mandatory interactions between students, supervisors and examiners are put into place.

10. Other comments, regarding your project and supervision?

Summary of replies:

Pros:

- Really enjoyed the course
- Very happy with the supervision
- Very satisfied
- Interesting project
- Everything worked well

Cons:

- Covid-19 pandemic made the situation quite straining, difficult working from home
- Too little information regarding Covid-19 pandemic
- Difficult with some labs being locked down for some time

Our comment:

Students in general are happy with their projects and supervisions. This year the main negative comments are related to the Covid-19 pandemic where the information has been lacking on active measures, and where the students have also found it difficult working from home or in solitude during different periods. We hope that the pandemic will be under control soon. For next year if the pandemic persists we will make sure that the mandatory interactions between students, supervisors and examiners are increased. We will also update the course PM and have updated the publicly available course web to make all requirements regarding application as well as thesis writing as clear as possible.

Thanks a lot for your help!

Our final comments and conclusions, and further plans:

The students were generally very happy about the course. The supervisors and examiners were also generally very pleased with the students' performances. The course in summary has been very successful. Considering the ongoing pandemic the course progress and results have been above expectations, we are very happy for this.

We will continue to make changes to improve information related to the application process on the course Canvas page, as well as information related to the thesis, project plan and opposition report in the course PM. It is important that the information is as clear and updated as possible, and not least that all students are reached by this information.

We will continue to stress during the start-up and halftime meetings the role of the examiners and that the students should contact us immediately regarding problems, such as communication with their supervisor. In particular for students with one KTH main supervisor and one external supervisor, it is also important that the KTH main supervisors know that their responsibility and role is to make sure that the student is in a functioning environment at the external site. The KTH main supervisor should be updated with the project plan and progress regularly.

Partly due to the Covid-19 pandemic several students also stressed the need for more mandatory meetings between students, supervisors and examiners. Without the daily interaction the lab, the risk is otherwise that the students feel a bit cut off. If the pandemic persists we will make sure that more interaction points are available for the students.

Many students find the limited time during the thesis work problematic, and we will continue to stress the need for active time management, since the format of the course requires a fixed 20 weeks, 30hp of work. We will also continue to explain that project and time management, including formulating a project plan, are explicit parts of the course's ILOs.

For next year's course evaluation we will consider reworking the course evaluation form into an online questionnaire.