



Plant biology- for future forestry SG0242, 30015.1920

7.5 Hp

Pace of study = 100%

Education cycle = Basic

Course leader = Judith Lundberg-Felten

Evaluation report

Evaluation period: 2020-02-12 - 2020-03-04

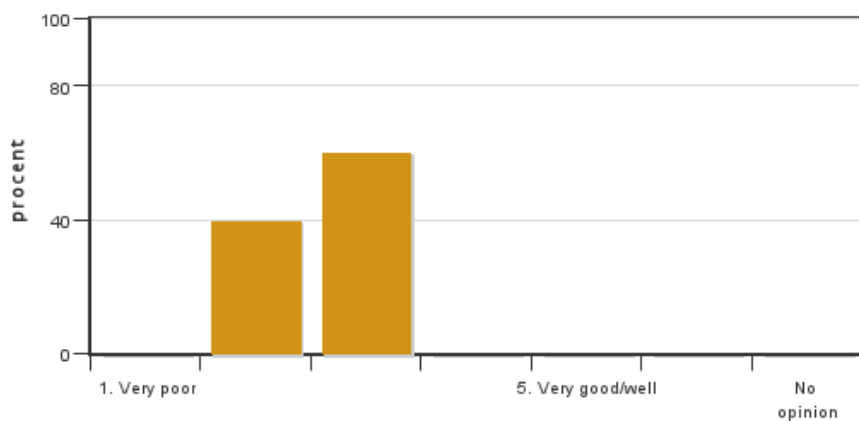
Answers 5

Number of students 10

Answer frequency 50 %

Mandatory standard questions

1. My overall impression of the course is:

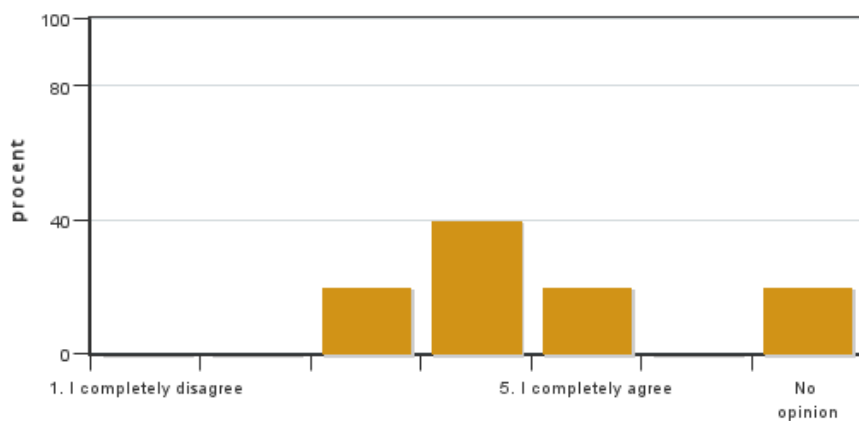


Answers: 5
Medel: 2,6
Median: 3

1: 0
2: 2
3: 3
4: 0
5: 0

No opinion: 0

2. I found the course content to have clear links to the learning objectives of the course.

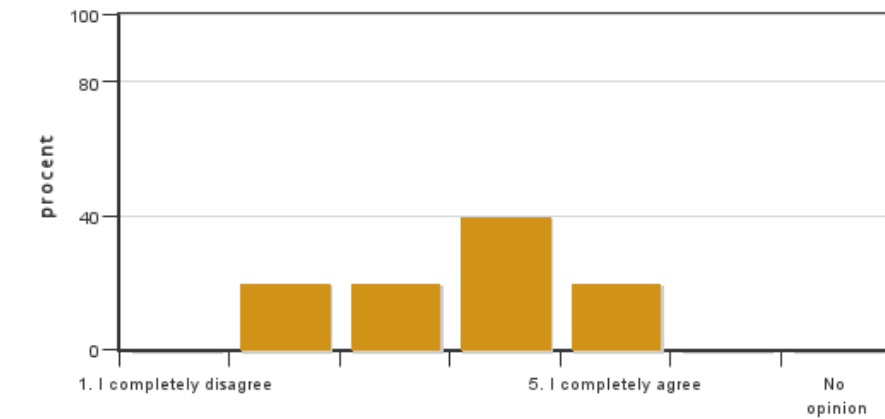


Answers: 5
Medel: 4,0
Median: 4

1: 0
2: 0
3: 1
4: 2
5: 1

No opinion: 1

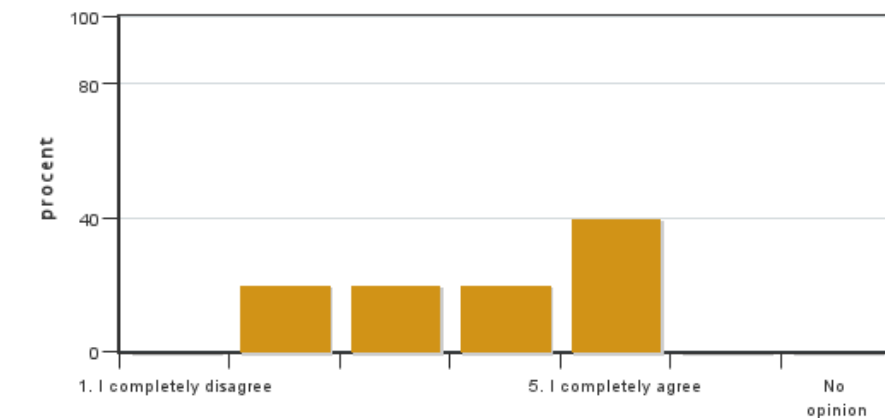
3. My prior knowledge was sufficient for me to benefit from the course.



Answers: 5
Medel: 3,6
Median: 4

1: 0
2: 1
3: 1
4: 2
5: 1
No opinion: 0

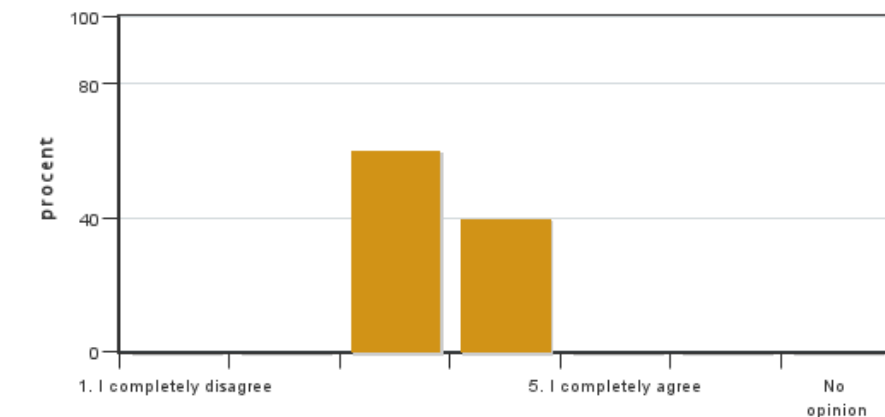
4. The information about the course was easily accessible.



Answers: 5
Medel: 3,8
Median: 4

1: 0
2: 1
3: 1
4: 1
5: 2
No opinion: 0

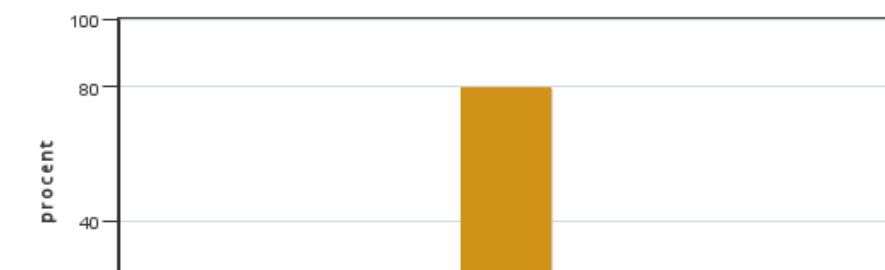
5. The various course components (lectures, course literature, exercises etc.) have supported my learning.



Answers: 5
Medel: 3,4
Median: 3

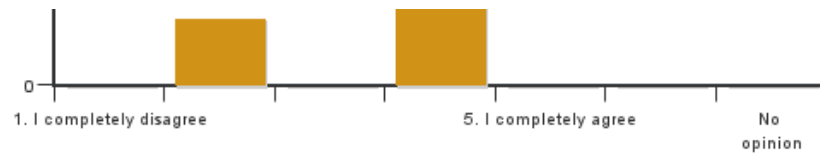
1: 0
2: 0
3: 3
4: 2
5: 0
No opinion: 0

6. The social learning environment has been inclusive, respecting differences of opinion.



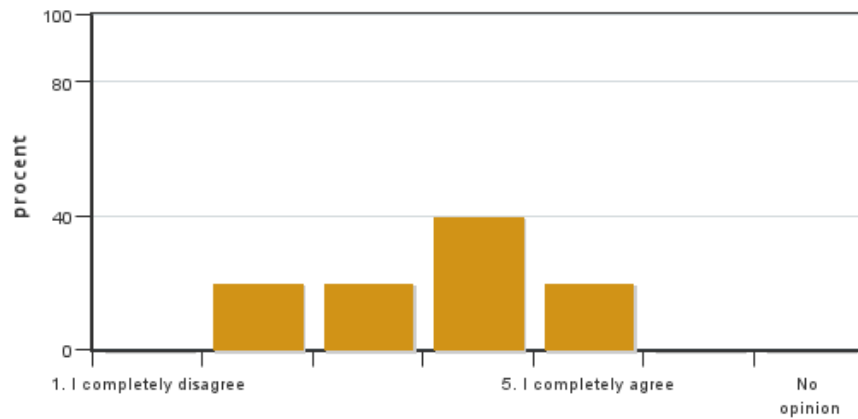
Answers: 5
Medel: 3,6
Median: 4

1: 0
2: 1
3: 0
4: 4
5: 0



No opinion: 0

7. The physical learning environment (facilities, equipment etc.) has been satisfactory.



Answers: 5

Medel: 3,6

Median: 4

1: 0

2: 1

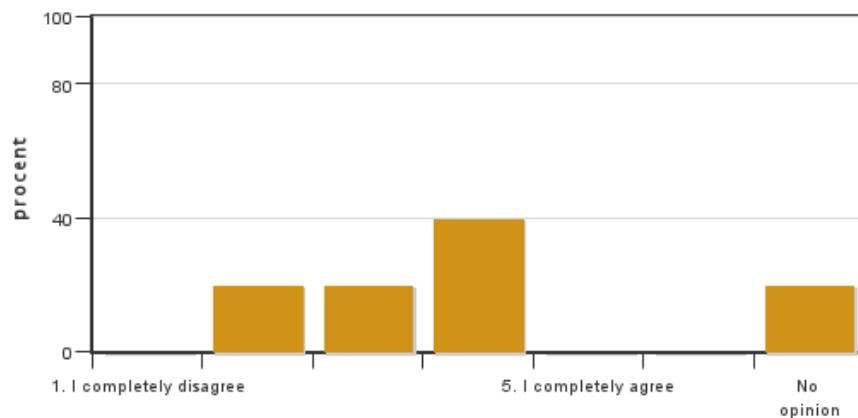
3: 1

4: 2

5: 1

No opinion: 0

8. The examination(s) provided opportunity to demonstrate what I had learnt during the course (see the learning objectives).



Answers: 5

Medel: 3,3

Median: 3

1: 0

2: 1

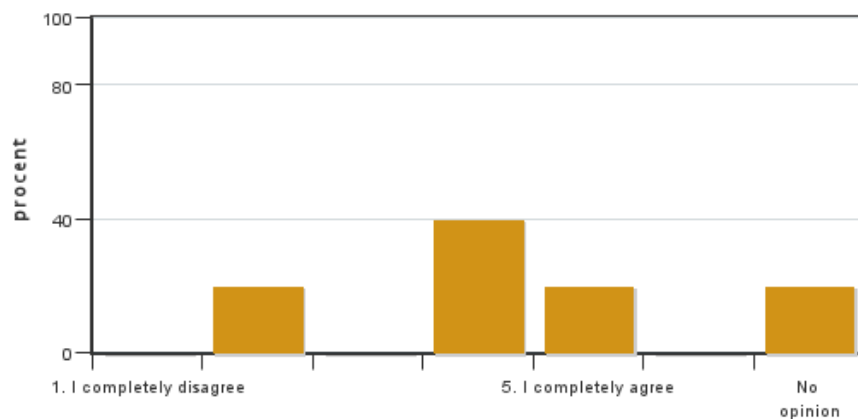
3: 1

4: 2

5: 0

No opinion: 1

9. The course covered the sustainable development aspect (environmental, social and/or financial sustainability).



Answers: 5

Medel: 3,8

Median: 4

1: 0

2: 1

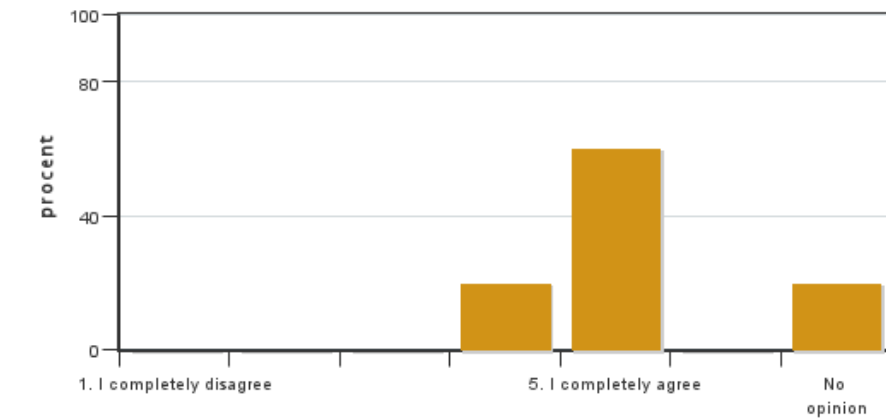
3: 0

4: 2

5: 1

No opinion: 1

10. I believe the course has included a gender and equality aspect, regarding content as well as teaching practices (e.g. perspective on the subject, reading list, allocation of speaking time and the use of master suppression techniques).

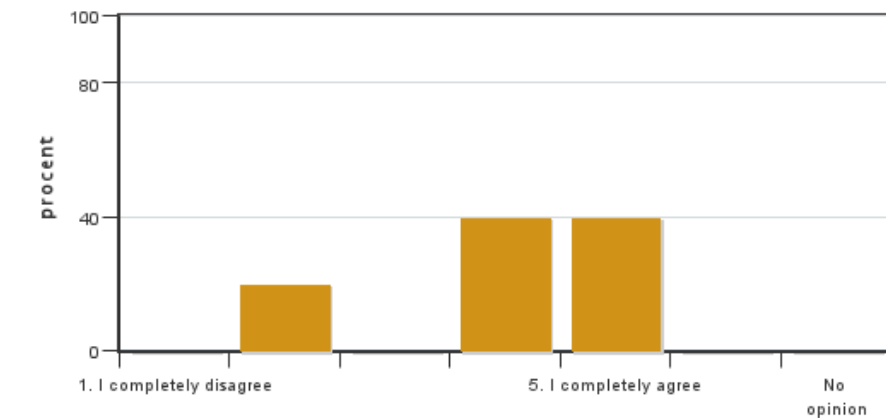


Answers: 5
Medel: 4,8
Median: 5

1: 0
2: 0
3: 0
4: 1
5: 3

No opinion: 1

11. The course covered international perspectives.

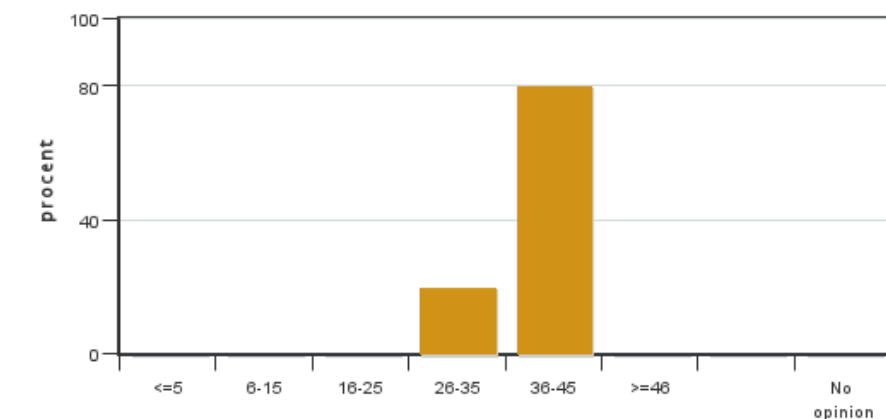


Answers: 5
Medel: 4,0
Median: 4

1: 0
2: 1
3: 0
4: 2
5: 2

No opinion: 0

12. On average, I have spent ... hours/week on the course (including timetabled hours).



Answers: 5
Medel: 38,0
Median: 36-45

≤5: 0
6-15: 0
16-25: 0
26-35: 1
36-45: 4
≥46: 0

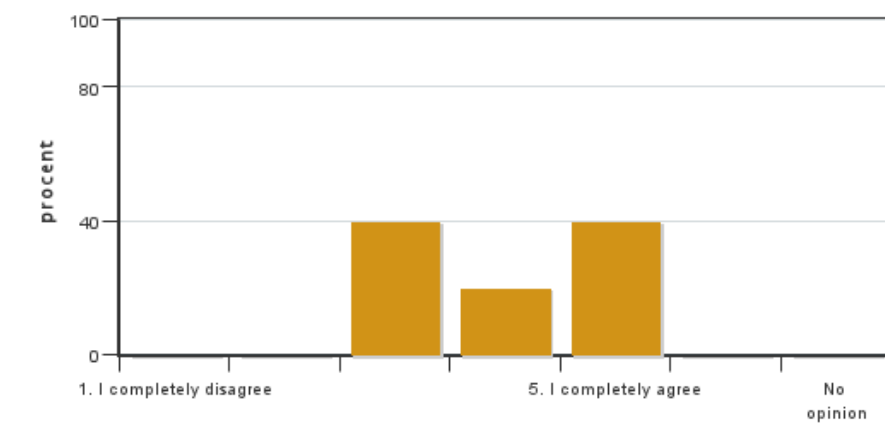
No opinion: 0

Additional own questions

13. Was the peer-review phase of the essay helpful and why? What did you get from it?

13. This year we proposed an additional tutorial where we discussed gene modification, gene expression, promoters, markers and RNAi. The idea was to facilitate the understanding of the subsequent lectures on genes and genomes (Nathaniel Street) as well as gene-modification (Ove Nilsson). Was this tutorial helpful or not? If its content, format or timing should be changed, please make suggestions.

13. Canvas was a useful system to gather course schedule, deadlines, course content and submit assignments



Answers: 5
Medel: 4,0
Median: 4

1: 0
2: 0
3: 2
4: 1
5: 2

No opinion: 0

14. In which way were your expectation of the course met, not met or exceeded?

Course leaders comments

This year's class was rather challenging as we had students with varying expectations (two of them dropped out after the first week as they found the content was too focussed on molecular processes rather than practical forestry) and also highly varying background from previous studies. Among the ten students that finally remained in the course, one joined after the first week was over, four were not present at all course moments, five attended all course moments.

The students evaluated about 80% of the lectures immediately after the lectures (through socrative.com) and already there highly varying opinions were obvious, from some that found it was too much repetition to others that found the content too advanced and for other again it was just right. However all evaluations showed a rather positive attitude with students admitting they needed to revise more to be on the required level. I am therefore surprised by the result of the evaluation on EVALD, yet I find points that can be used for improvements.

Where reading exercises and online-quizzes were given to help bring the level of knowledge among the students to a similar level prior to the lectures, not all students engaged into this preparation, which may explain the diversity of the level of understanding noted in the anonymous feedback after the lectures. Whereas we have tried to address this problem through homework and preparation and the quizzes in previous years, I as a teacher do not see a solution if students do not engage in such exercises. As one student reports below, this may reflect a general tiredness of studies among some students.

As the course got top evaluations in the previous year we kept the content mostly similar, including most parts of the presentation with updates where valuable. This year one tutorial (2hrs on gene expression, selection of promoters for altering gene expression) was added and as in the previous years (which then was new) the peer-review process for the essay was kept. I have noticed (and this is also visible from the student's replies below) that, despite having given instructions in written and during a tutorial about the essay and its evaluation criteria (criteria that I would respect and the students should use for the peer-review evaluation report) the results of how these were integrated in the work by the student and used for peer-review had again a very brought span, from excellent to poor. For two students the language was insufficient and they were directed to the language lab at UmU for help, one of the students took this opportunity and this markedly improved the quality of the essay. The essay was an effort for the students to reflect critically upon advantageous and risks of GMOs and clonal forestry based on provided literature and I could see that the general outcome of the final versions was very positive when it came to contrasting the arguments in an objective way. As this is an exercise that trains critical reflection both thought the argumentation and the peer-review process, this should be maintained. However there was a confusion whether they should choose GMO and or clones for their essay, so I will make this clearer for next year.

The criticism given by one of the students concerning the poor quality of powerpoint slides in the lectures is difficult for me to see a reason for. We are 10 teachers in the course and I have attended the lectures of 8 of them. All teachers came well-prepared with balanced presentations concerning written and visual content. If this student had specific lectures in mind where improvements could be made, I would have liked to know more details. As most of the teaching relies on presence in the lectures (especially where course content exceeds the content of the course book), I can see a difficulty for students to grasp the content if they have not taken notes or not attended the lectures and are only relying on the powerpoint files. I will make this expectation clearer prior to the next course.

Concerning the presentation, two of three presentations were very good, one of them required improvements

concerning content/structure/presentation. The subject of the presentation gives the students an opportunity to revise and use the lectures on lignin and cellulose and understand possibilities to engineer these polymers, which is in line with the course subject and an important preparation for the exam. I consider this an important exercise that should be kept. Like last year, we were three teachers giving feedback and asking questions after the presentation to evaluate the depth of understanding of the material or to clarify connections that the students hadn't seen. I experienced this moment as friendly and calm, contrasting with some of the student's experience reported in this evaluation. We gave both positive and constructive feedback for improvement of future presentation. I had given instructions concerning the expectations on the presentation in the tutorial about presentation and essay writing techniques (which not everyone attended). This may, as some students mention, also not have been in the appropriate place on Canvas to read up on it again when preparing the presentation and I will change this. I will for next year create a checklist with those aspects that we will use for the evaluation of the presentation to make the points more transparent that we comment on to avoid that the students feel personally criticized. I will also consider grading the presentation so that the students will see a direct outcome of their efforts. Concerning the evaluation of the essay I have given very detailed comments both in the text as well as a summarizing evaluation indicating which points of the grading criteria (which were on Canvas) the text complied with. Maybe here a simple checklist could reduce my work and make this easier for the student to see.

The labs are intended to give the students a practical opportunity to understand how plants can be transformed and they were carried out on this subject for a few years. We have noted that the students at this stage lack background on understanding vector construction and the abstract theory behind the plasmids that are transferred through the *Agrobacteria*. It occurs that even though the students, who supervise the lectures, have made efforts to explain the theory before the labs, this is still difficult to understand. We will reconsider the content of this labs. As an alternative we have discussed to propose a lab on somatic embryogenesis, which may be more directly in line with the lectures.

Concerning group discussions within the course, they were intended to bring the students to the boundaries of what they had learned and see the complexity of systems, yet, by going back to the content of the lecture, the students would find answers. This had worked very well in the two previous year, but this year there was more of a frustration visible among the student with these exercises. I can see an improvement by dividing the discussion into a clear repetition of course content part and one more evaluative/analytical question that brings the students across their boundaries. A challenge here this year was also that those students who didn't have enough background to understand the content of the course, had trouble contributing to the discussions.

8 students attended the first examination opportunity, five passed. The five students that passed had throughout the course shown regular attendance of lectures and efforts to comply with the assignments at the expected level as well as engaged into exercises. The exam questions were suggested by the different teachers and stretched in complexity from basic (large majority, repetition of what was taught) to advanced (reflective) questions. From the results of the exam I therefore believe that the level of complexity of the questions was appropriate and this result shows the importance of attendance of the lectures and using the proposed exercises to be well-prepared for the exam.

As a summary, what I will improve prior to next year's course:

- Improved structure of information on Canvas concerning instructions for the essay and the presentation and the discussion forum which people didn't find
- Instruction at course start that attendance of the lectures, note-taking and engaging into exercises is expected and needed for passing the exam
- Divide discussion exercises into a more repetitive and a more analytical part and let students prepare the exercises prior to the lecture.
- Consider grading (pass/fail) a sufficient engagement into the peer-review process and provide students with a list of points that they need to tick off during this process (now we had a list but people didn't seem to use that for the peer-review)
- Checklist for evaluation of the presentation with grading (5/4/3 and minimal criteria for pass)
- Re-evaluate the content and format of the lab.
- See over the GMO and society lecture with Stefan as students find this too "pro-GMO".

Student representatives comments

The overall impression of the course seem to be that the students felt it was to stressful. Furthermore some of the presentations from the lectures did not include any comments which made it more difficult to study for the exam and go back if you missed a lecture. Even though there was not a lot of students taking the course we had a large variation in our previous knowledge about the subjects in the course. Because of that reason some of the students felt that the lectures was difficult to follow and there was a lot of new information and some thought it was repetition. The students also thought that the course had a lack of structure when it came to the different parts ex presentation and the report.

When it comes to the different learning components some students felt the lab was difficult to understand, both what they were doing but also what should be included in the report. There were different versions of how the report should be written on canvas.

The social learning environment appears to be good according to the evaluation, 4 votes on 4, although some students felt stupid during the oral presentations since there were some questions that everyone was unable to answer, and when we could not answer we received even more difficult questions.

The course had an international perspective and covered sustainable development. The students put a fair amount of time on the course.

When it comes to gender and equality the course is one of the few to include this. There was a variation among the teachers, both men and women, which was appreciated among the students since it usually is mostly men.

When it comes to the question of peer-review some of the students felt it was beneficial but some did not like it since they did not receive comments on how to improve the work and later on received from the teachers a lot to improve. This is really depending on who is reading the report and gives the feedback. The extra tutorial lecture was appreciated by the students.

The structure on canvas was good, could be improved by keeping information about deadlines on the same place so it could be easy to find. Also some assignments had different instructions both from this year and last year, it would be easier only to have for the year in which the course is given.

The expectations on the course were met somehow. Some students felt it was a lot of repetition in the beginning of the course and in some cases on a too high level which made it difficult to follow. Some students wanted more gene stuff and some wanted more physiology.

In general it is hard to conclude anything by the evaluation due to few answers. But you can receive an idea on what has been working and what has not been working.