



## Introduction to Plant Biology for Sustainable Production BI1294, 10301.2223

15 Hp

Pace of study = 100%

Education cycle = Advanced

### Evaluation report

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**Evaluation period: 2022-10-24 - 2022-11-14**

Answers 8

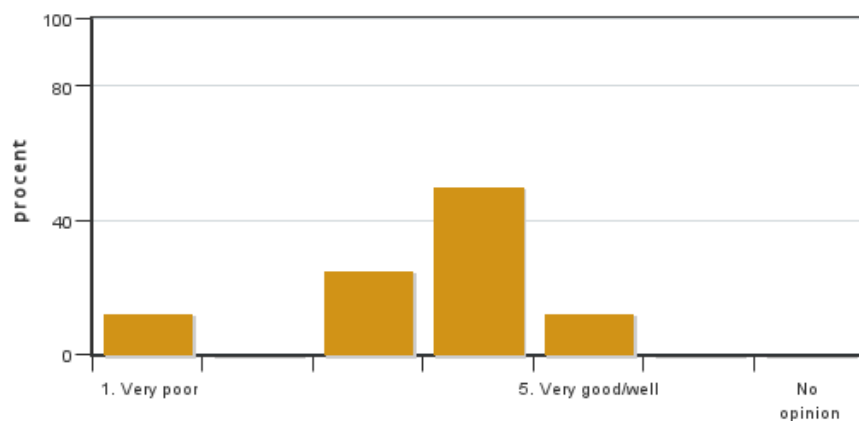
Number of students 7

Answer frequency 114 %

### Mandatory standard questions

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#### 1. My overall impression of the course is:

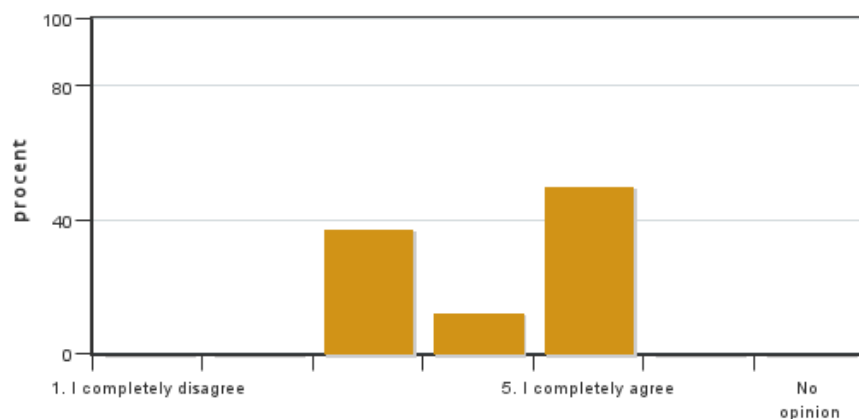


Answers: 8  
Medel: 3,5  
Median: 4

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

No opinion: 0

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

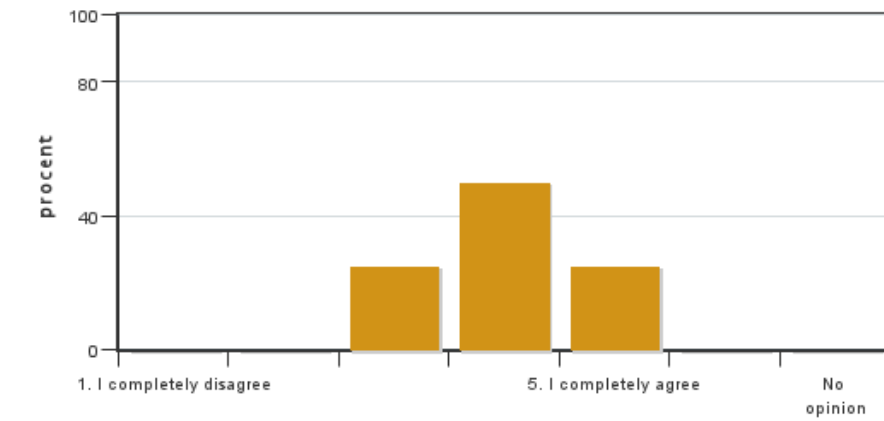


Answers: 8  
Medel: 4,1  
Median: 4

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

No opinion: 0

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

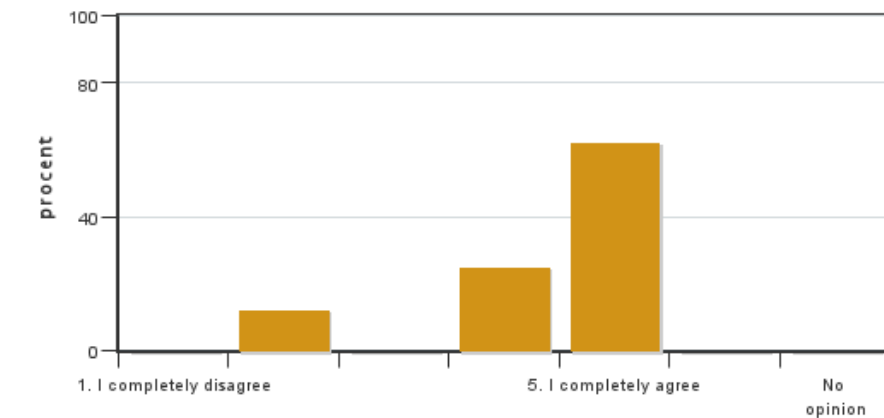


Answers: 8  
 Medel: 4,0  
 Median: 4

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

No opinion: 0

**4. The information about the course was easily accessible.**

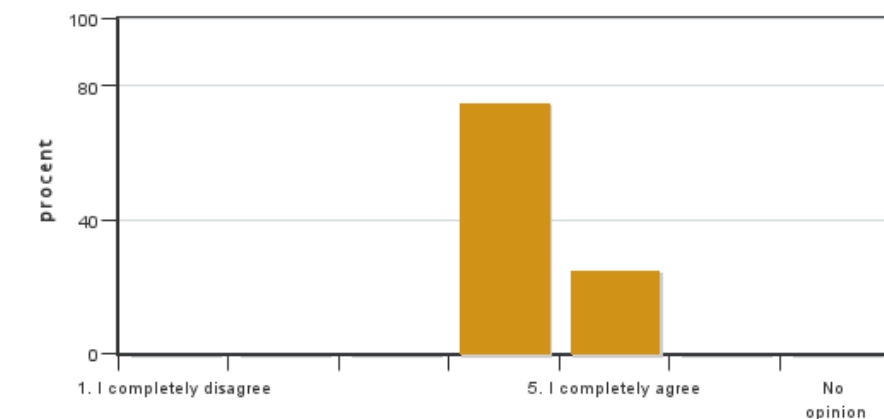


Answers: 8  
 Medel: 4,4  
 Median: 5

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

No opinion: 0

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

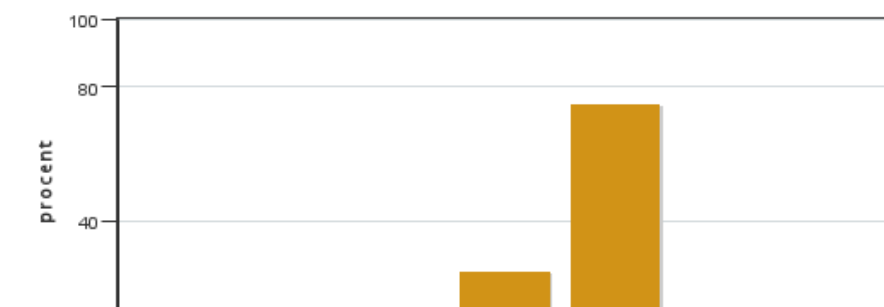


Answers: 8  
 Medel: 4,3  
 Median: 4

1: 0  
 2: 0  
 3: 0  
 4: 6  
 5: 2

No opinion: 0

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



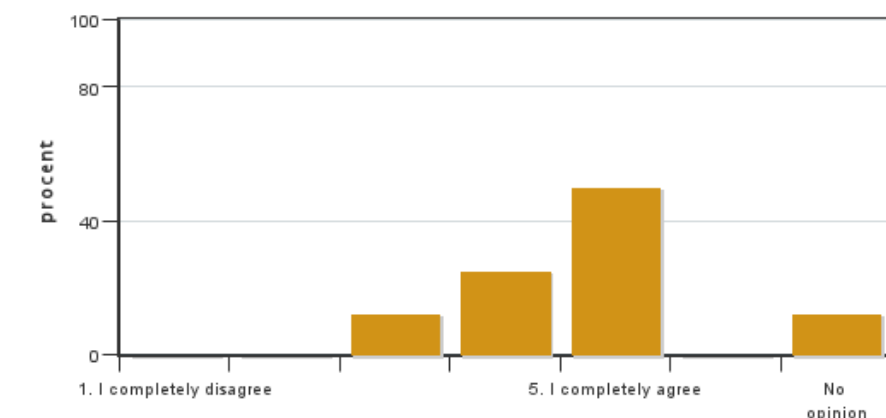
Answers: 8  
 Medel: 4,8  
 Median: 5

1: 0  
 2: 0  
 3: 0  
 4: 2  
 5: 6

No opinion: 0



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

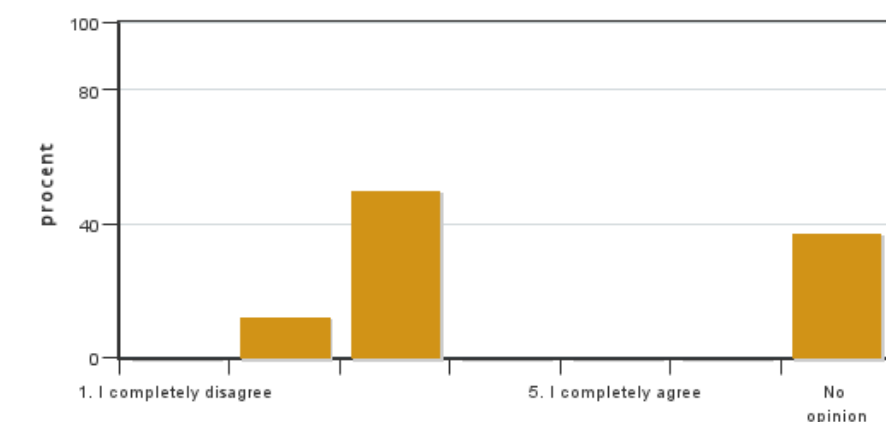


Answers: 8  
Medel: 4,4  
Median: 5

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

No opinion: 1

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

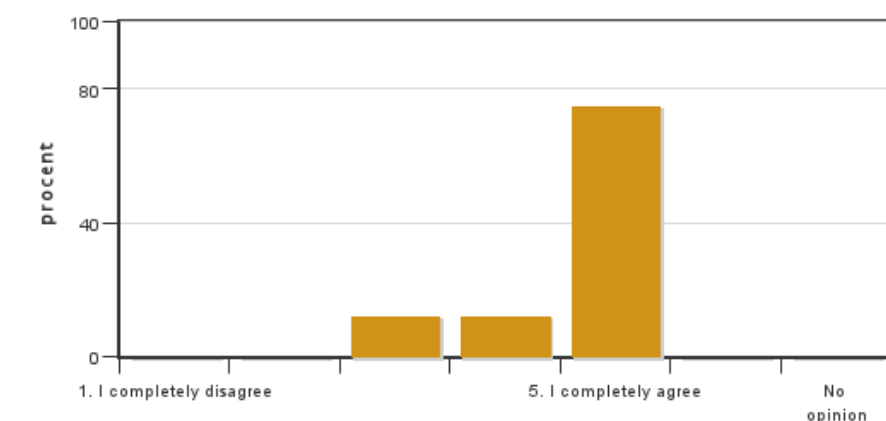


Answers: 8  
Medel: 2,8  
Median: 3

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

No opinion: 3

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

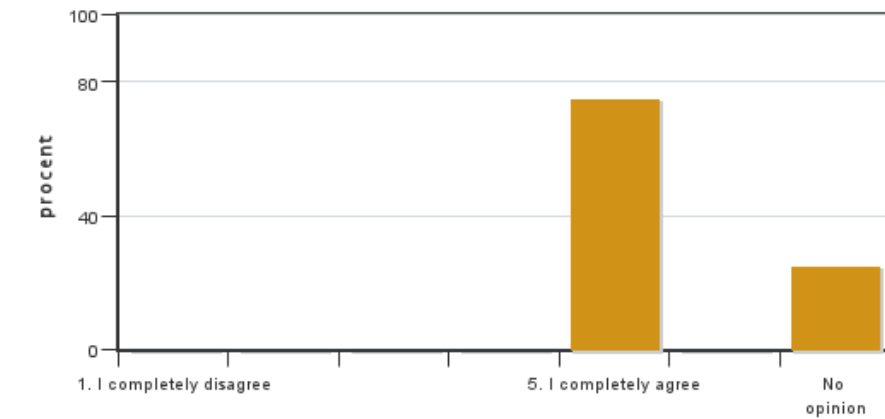


Answers: 8  
Medel: 4,6  
Median: 5

1: 0  
2: 0  
3: 1  
4: 1  
5: 6

No opinion: 0

**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).**

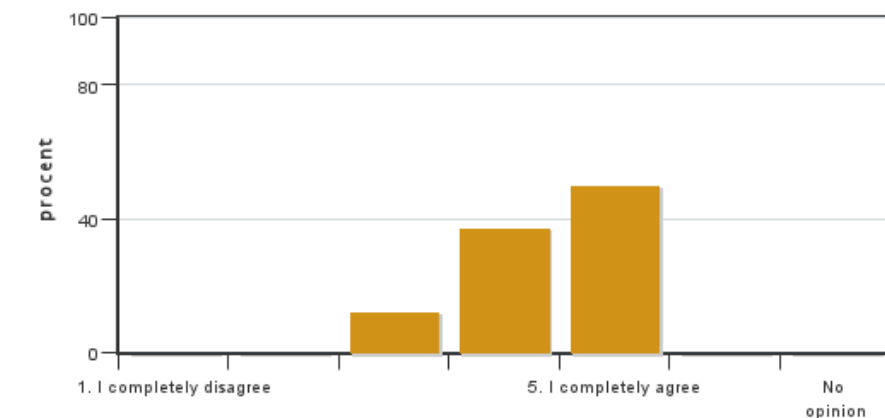


Answers: 8  
Medel: 5,0  
Median: 5

1: 0  
2: 0  
3: 0  
4: 0  
5: 6

No opinion: 2

**11. The course covered international perspectives.**

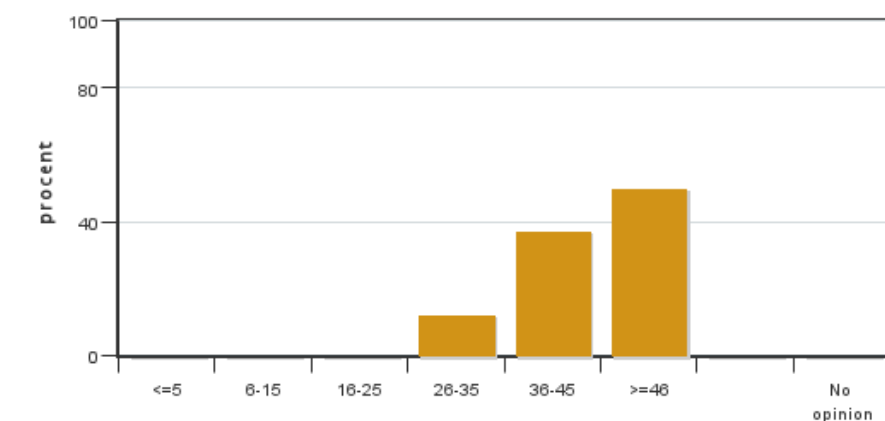


Answers: 8  
Medel: 4,4  
Median: 4

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

No opinion: 0

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

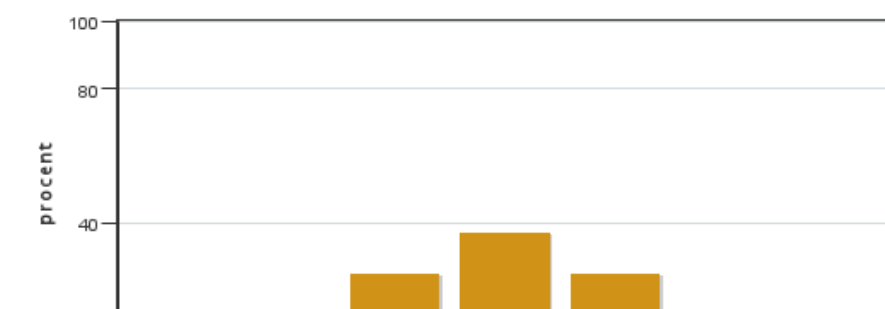


Answers: 8  
Medel: 41,8  
Median: 36-45

≤5: 0  
6-15: 0  
16-25: 0  
26-35: 1  
36-45: 3  
≥46: 4

No opinion: 0

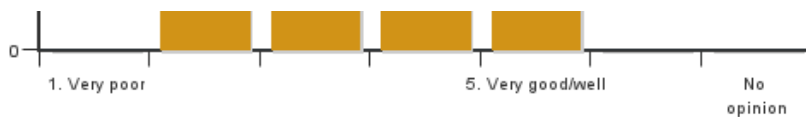
**13. If relevant, what is your overall experience of participating in all or part of your course online?**



Answers: 8  
Medel: 3,8  
Median: 4

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

No opinion: 0



14. If relevant, please share what worked well when participating in teaching on distance

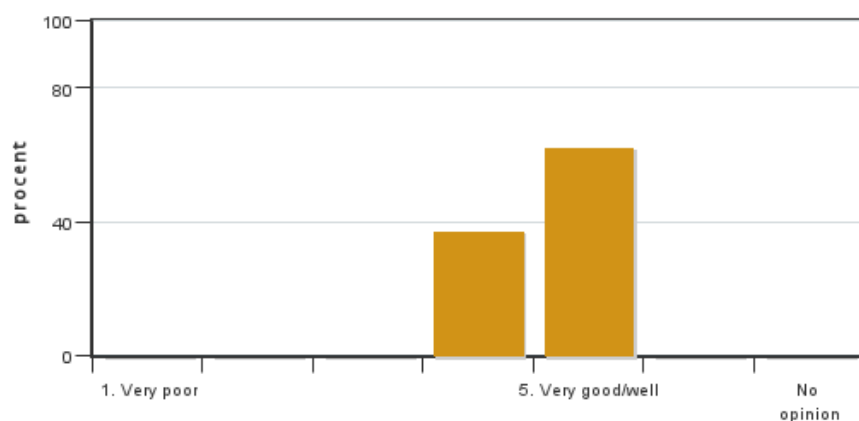
15. If relevant, please share what worked less well when participating in teaching on distance

## Additional own questions

16. The course consists of several modules (course weeks) what is your opinion on the first and second weeks on plant anatomy and transcription and gene regulation ect.?

16. What is your opinion on the written assignments and the journal clubs

16. What is your opinion on the course lab practical?



Answers: 8  
Medel: 4,6  
Median: 5

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

No opinion: 0

17. What is your opinion on the lectures on transcriptomics, metabolomics and proteomics?

17. What is your opinion on the lectures on ethics, science communication and genetic resources?

17. Do you have any comments on the fact that several lectures were distance lectures, i.e. that the lecturer was on a remote location?

## Course leaders comments

On this course, students participate from both the SLU campuses at Ultuna and Alnarp. A proportion of the lectures are also held together with a sister course at Umeå university.

This comment is relevant for both of these course-locations

Overall the students seem to be happy with the course content and organization. We put an emphasis on methods to study plants, writing skills and how plant science contributes to sustainable development. Many students appreciate the Journal Clubs (JC) and their associated writing assignments. However, some students express concerns that the texts are too advanced or that not enough time is provided to complete all tasks associated with the assignments.

Next year we will try to make changes in the schedule to accommodate more time between the hand-in of texts for peer review, subsequent JC and the final dead-line for the assignment.

We introduced a digital lab practical during the pandemic that practices problem-based learning. Since this lab practical was appreciated by the previous students, we also kept it for the course this year. Some students expressed concerns that they did not get enough explanation on how to perform the tasks in the digital lab practical. Next year we will further clarify the concept of problem-based learning as this obviously was new for some of the students in this year's course.

The distance-learning poses some challenges because, at all times, some students are not in the same room as the lecturer. SLU have three rooms specially dedicated to distance learning- The rooms are equipped with extra cameras, microphones and monitors that facilitate interactions across campuses. Due to the heavy booking, the course was for many lecturers only booked in the distance learning room in Alnarp. This did not work so well, and next year we will try to get distance lecture rooms for most of the lectures. To give more teacher time to the students in Alnarp, one or two lectures that lecturers currently give in Uppsala will be held by lecturers in Alnarp.

Note, in Alnarp, eight students participated actively in the course, so the answer frequency is, in fact, 100 %.

## Student representatives comments

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The course's first and second weeks were informative and interesting. The seminar on UN sustainable development goals was appreciated as it provided a nice discussion in class. The students enjoyed the final weeks on transcriptomics, metabolomics and proteomics even though they were new topics for most of the students. It is unfortunate that some of the teachers had trouble finishing their lectures on time, hence it would be great to extend the lecture hours, perhaps by starting an hour earlier. The students recognized the significance of the lectures on ethics and scientific communication even though the topics were not for everyone's liking.

All students agreed that lectures, literature and exercises supported their learning. Several students mention that the digital lab week was difficult as no prior lecture was given on how to use the cloning/sequence editing software SnapGene. Most students would have preferred to have a general lecture on cloning and gateway cloning before trying to use the software. In general, all of students had good things to say about the lab practical, however one student points out that some lab training would have been helpful as some students did not have prior lab experience.

The majority of students appeared to have an overall good attitude towards the written assignments, particularly the following journal clubs. The journal clubs gave an excellent opportunity for discussion with classmates. Having a teacher in Alnarp to go over the articles figure by figure was very helpful. For the written assignments, the students were required to submit a first draft for peer review before submitting a final draft for grading. However, it might be advisable to schedule the journal clubs before submitting the first draft for peer review since the feedback on the first draft wasn't helpful unless you fully understood the article, which most of the students didn't before participating in the journal clubs.

The course was taught in both Alnarp and Uppsala, but all lectures were broadcasted from Uppsala so that students in Alnarp could follow along from a room specifically designed for digital learning. Apart from a few occasions with technical difficulties such as audio delays, it worked fine to view the lectures from Alnarp. Even though the classroom had high-quality microphones and cameras, some students still found it challenging to interact with the lecturers and ask questions.

The students with health issues were given a zoom-link to use from home, which was appreciated. One student mention that it would be great if we could be provided the same zoom-link throughout the course rather than having to ask for a new one for each lecture. Overall, the students agree that having a variety of teachers from Uppsala, Umeå, and Alnarp with various teaching methods is rewarding. Although it is great to have the best teachers from across all SLU campuses, it is still preferable to have them present in class so the students can participate more actively, pay more attention and ask more questions.