



Bioenergy - Technology and Systems TN0352, 30348.2324

10 Hp
Pace of study = 35%
Education cycle = Advanced
Course leader = Åke Nordberg

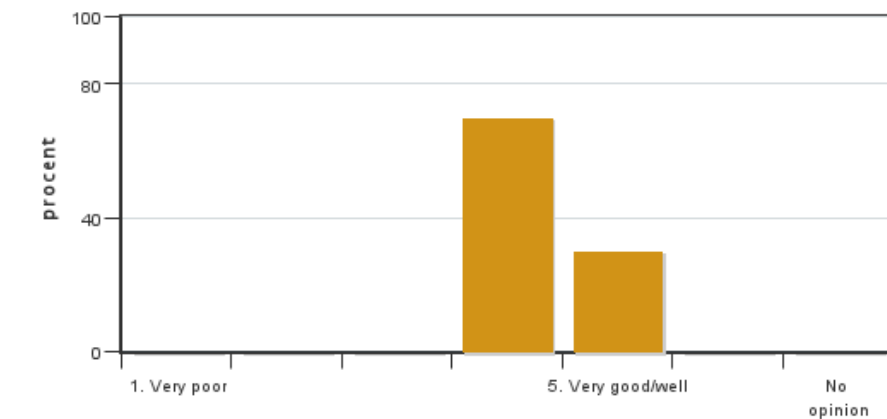
Evaluation report

Evaluation period: 2024-05-20 - 2024-06-16

Answers 10
Number of students 10
Answer frequency 100 %

Mandatory standard questions

1. My overall impression of the course is:

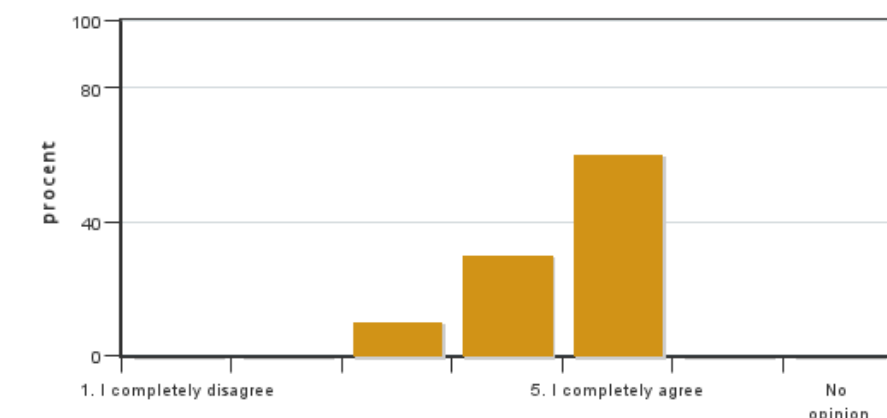


Answers: 10
Medel: 4,3
Median: 4

1: 0
2: 0
3: 0
4: 7
5: 3

No opinion: 0

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



Answers: 10
Medel: 4,5
Median: 5

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

No opinion: 0

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

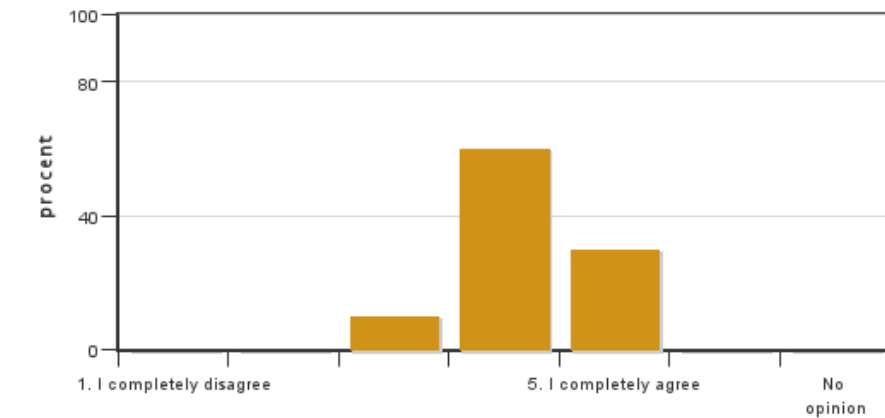


Answers: 10
 Medel: 5,0
 Median: 5

1: 0
 2: 0
 3: 0
 4: 0
 5: 10

No opinion: 0

4. The information about the course was easily accessible.

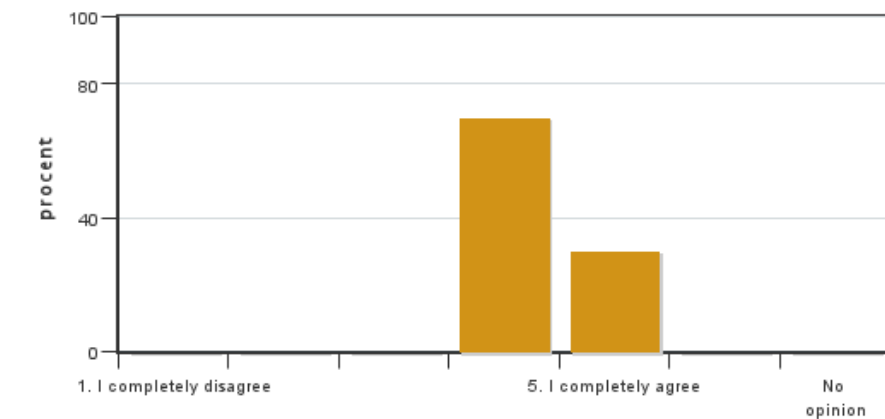


Answers: 10
 Medel: 4,2
 Median: 4

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

No opinion: 0

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

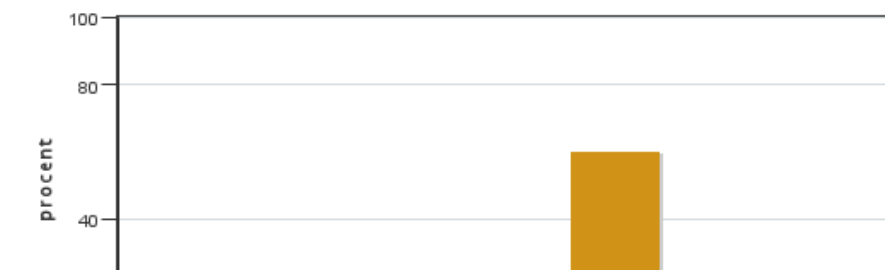


Answers: 10
 Medel: 4,3
 Median: 4

1: 0
 2: 0
 3: 0
 4: 7
 5: 3

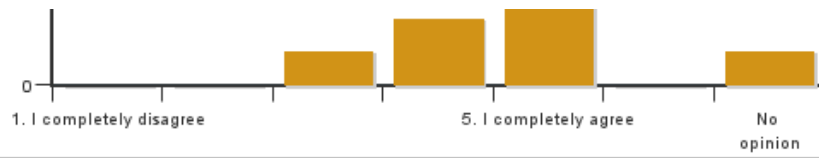
No opinion: 0

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



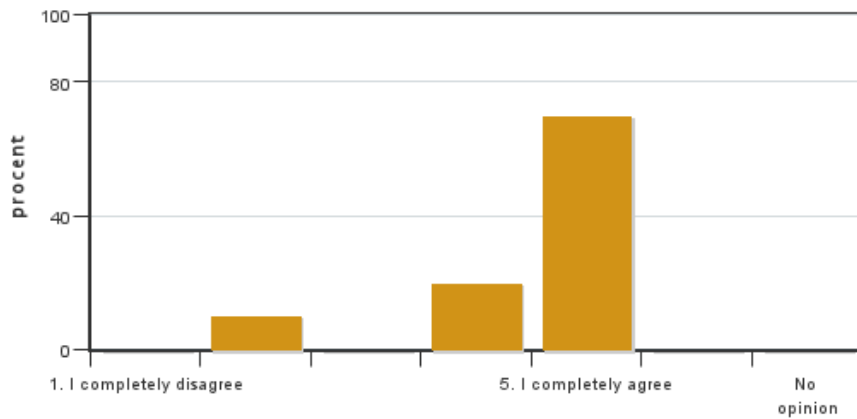
Answers: 10
 Medel: 4,6
 Median: 5

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



No opinion: 1

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



Answers: 10

Medel: 4,5

Median: 5

1: 0

2: 1

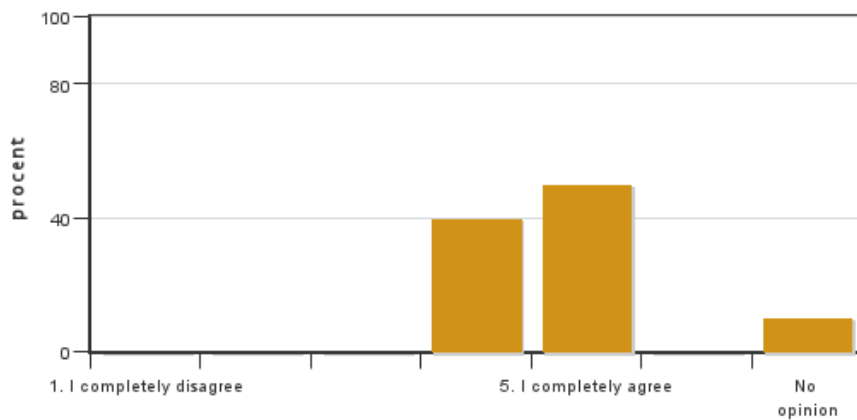
3: 0

4: 2

5: 7

No opinion: 0

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



Answers: 10

Medel: 4,6

Median: 5

1: 0

2: 0

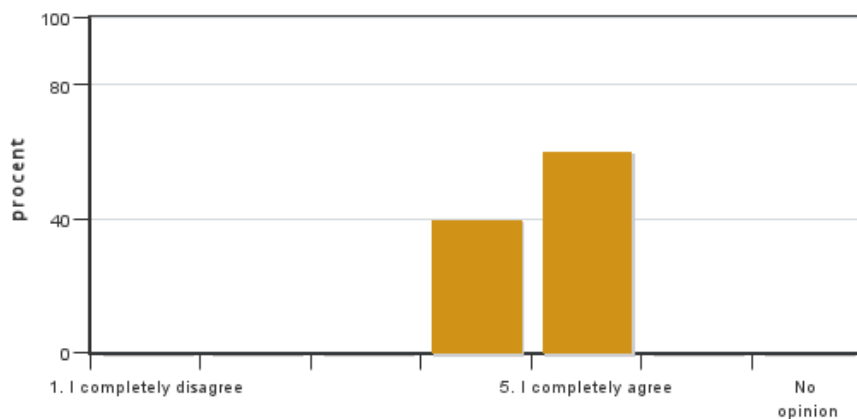
3: 0

4: 4

5: 5

No opinion: 1

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



Answers: 10

Medel: 4,6

Median: 5

1: 0

2: 0

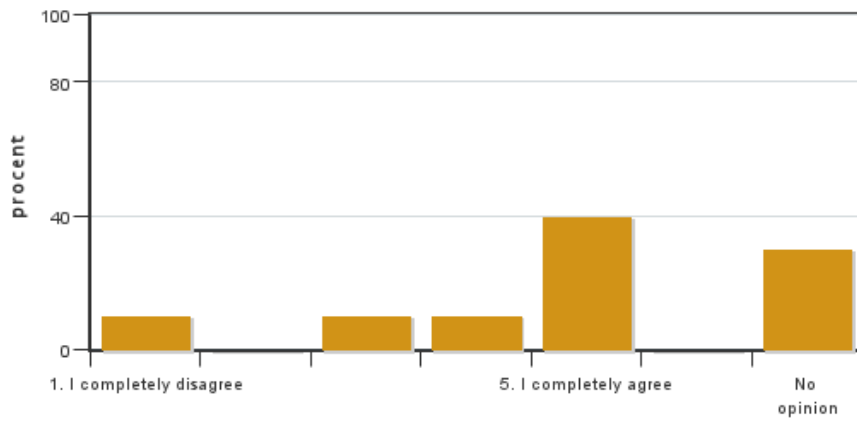
3: 0

4: 4

5: 6

No opinion: 0

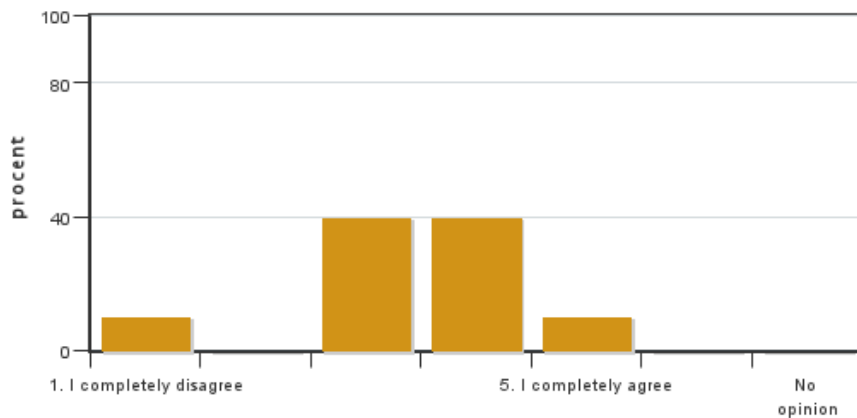
10. I believe the course has included a gender and equality aspect, regarding content as well as teaching practices (e.g. perspective on the subject, reading list, allocation of speaking time and the use of master suppression techniques).



Answers: 10
 Medel: 4,0
 Median: 5

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

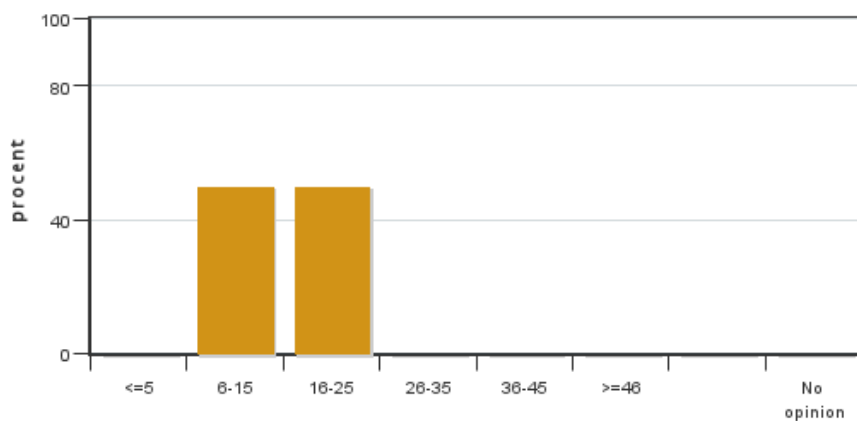
11. The course covered international perspectives.



Answers: 10
 Medel: 3,4
 Median: 3

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

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

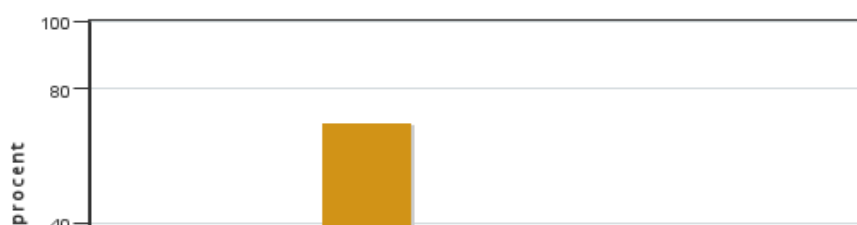


Answers: 10
 Medel: 15,0
 Median: 6-15

≤5: 0
 6-15: 5
 16-25: 5
 26-35: 0
 36-45: 0
 ≥46: 0
 No opinion: 0

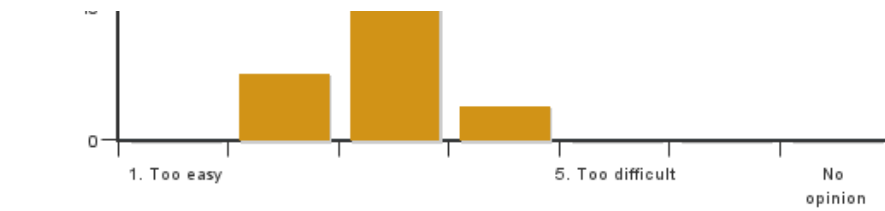
Additional own questions

13. The course's degree of difficulty was ...



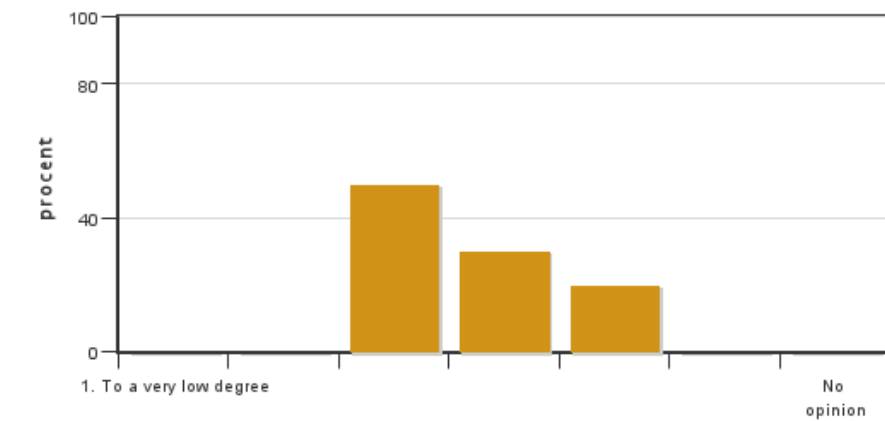
Answers: 10
 Medel: 2,9
 Median: 3

1: 0
 2: 2
 3: 7



4: 1
 5: 0
 No opinion: 0

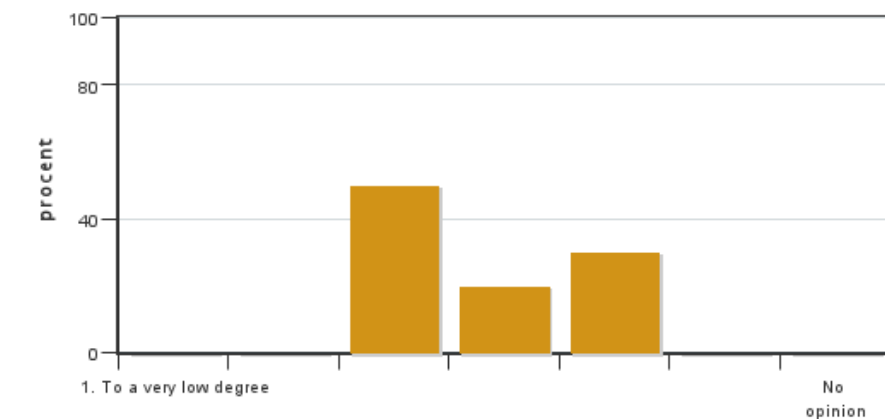
14. The course has developed my writing skills



Answers: 10
 Medel: 3,7
 Median: 3

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

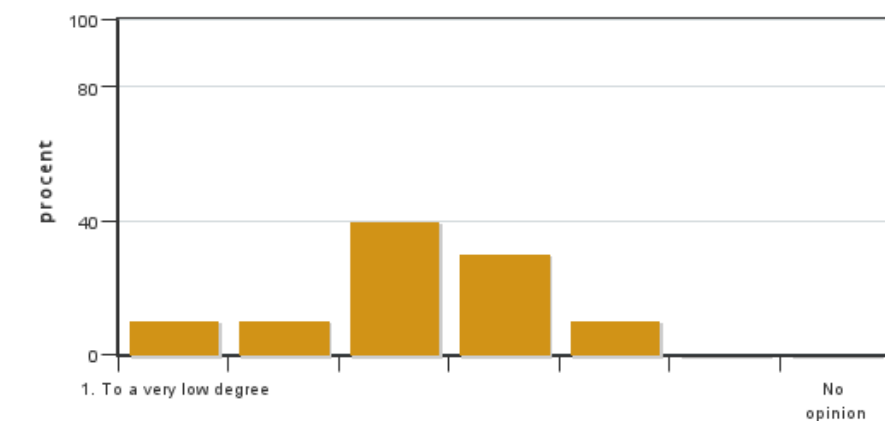
15. The course has developed my skills in oral presentation



Answers: 10
 Medel: 3,8
 Median: 3

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

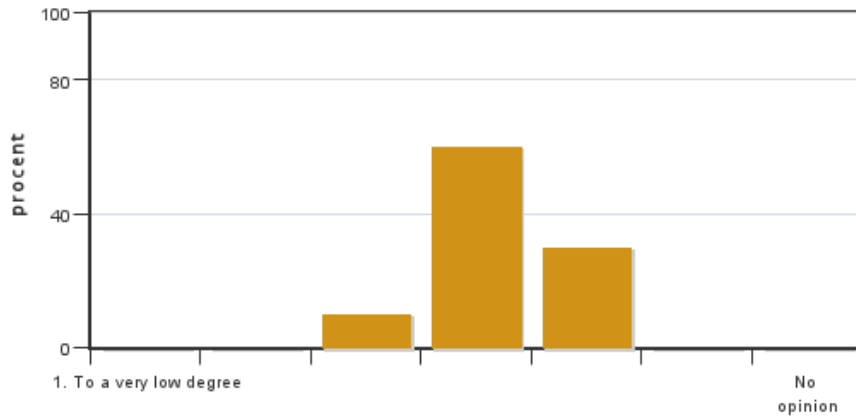
16. The course has developed my problem solving skills



Answers: 10
 Medel: 3,2
 Median: 3

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

17. I have received constructive feedback on the assignments

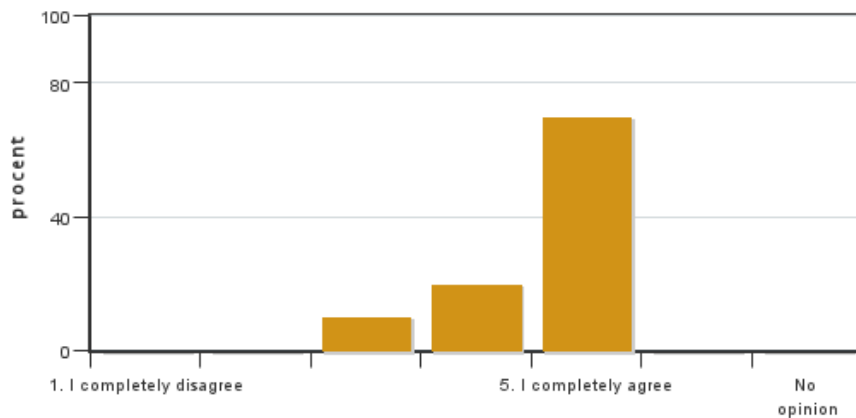


Answers: 10
 Medel: 4,2
 Median: 4

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

No opinion: 0

18. I think the teachers have been engaged in their teaching

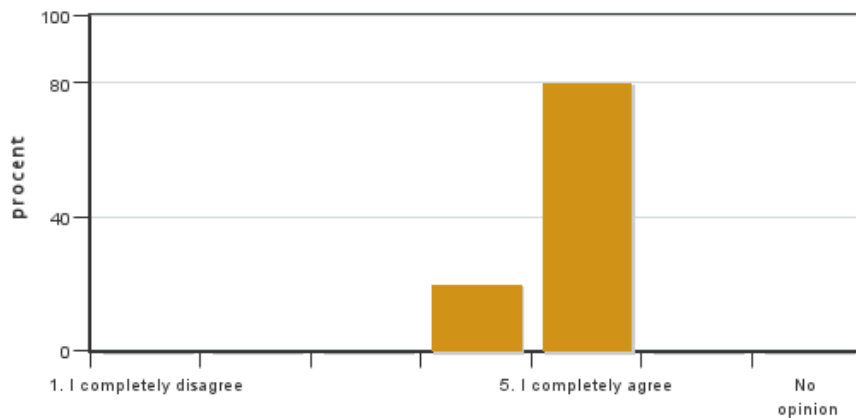


Answers: 10
 Medel: 4,6
 Median: 5

1: 0
 2: 0
 3: 1
 4: 2
 5: 7

No opinion: 0

19. The study visits were relevant and interesting

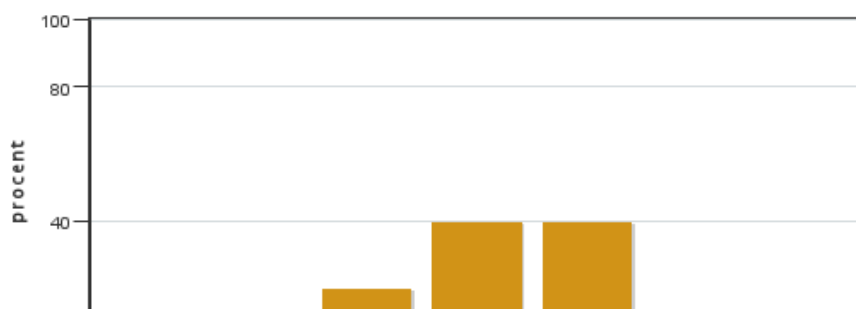


Answers: 10
 Medel: 4,8
 Median: 5

1: 0
 2: 0
 3: 0
 4: 2
 5: 8

No opinion: 0

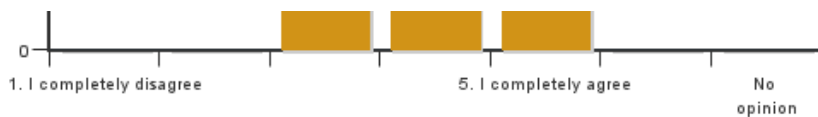
20. The balance between the different blocks was appropriate



Answers: 10
 Medel: 4,2
 Median: 4

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

No opinion: 0



21. Any specific aspects in the course you are satisfied with

Course leaders comments

The response participation on the course evaluation was 10 students out of 10 active students. We thank for the engagement and the constructive responses, which are a valuable contribution for the continuous progressive development of the course. We also like to thank the student representative for a thorough analysis of the evaluation and the complementary input provided. The general course impression rated an average of 4.3. Based on a participation frequency of 100% as well as the complementary comments by the student representative, we also have the impression that the course was appreciated.

The teachers are satisfied that we could perform the course and meet the students "in real life". The small class size also facilitated interaction and discussions with the student, as well as it facilitates giving feedback on e.g. assignments. We could choose distance activities when it was appropriate, while having lectures, seminars and study visits on-site. Based on previous course evaluations including the current evaluation, we believe that structuring the course into three blocks is still appropriate to cover the rather broad range of bioenergy. Regarding the three assignments, we have tried to have a variation of the structure and content to address different approaches. The balance of credits between assignment and the written exam has been developed based on time requirement and considering previous course evaluations. However, this will also be considered for planning the course next year.

The bioenergy area is very broad and we are mostly focusing on Nordic and European conditions to reach a certain depth in the teaching. The lecture by MEP Emma Wiesner was new for this year, and even though MEP's have a tight agenda we hope to be able to include the perspectives and insights from the European Parliament for coming courses as legislations, policies and goals have a very large impact on the sector.

The study visits were appreciated. Our ambition is to provide both theoretical and practical aspects of bioenergy. When organizing study visits, we are dependent on the willingness and accessibility to the plants dictated by the plant owners. This has worked well and we hope to keep this confidence with the external actors. The reimbursement of travelling cost has worked previous year, but it seems to have been a miscommunication related to the solid study visit his year.

For the schedule we are dependent on the central planning and the time slots are allocated based on the overall plan and prioritized courses for the education year (ES åk 4). We leave the exam week for period 3 and the re-exam week after Easter free from teaching. However, as the Easter week appears with different week numbers from year to year, we also try to adjust the teaching in the different blocks according to that. Furthermore, we have the exam in early May to avoid the exam week for period 4 (last week of semester). Based on earlier course evaluations, we have also the ambition to give the introduction for the assignments as early as possible in the different blocks in order to give room for planning the disposition of the work.

Student representatives comments

The response rate for this course was 100%, where 10 out of 10 students answered, and was helped by there being a scheduled time for this during the final presentation. The overall impression of the course was very positive, and with a helpful division into three separate modules, this course showed the complexity and the relevance of this energy system. The course was clear in its learning objective and accessibility, and many students thought that the division into three modules - solid, liquid and biogas - with three different knowledgeable and enthusiastic lecturers helped provide clarity and a clear structure. All students had sufficient prior knowledge, and thought that the course did well on expanding these with more in-depth, relevant information. The majority of this course's focus was on Swedish bioenergy from a system perspective which wasn't a bad thing, but some students have suggested to include a bit more international perspective, since this course is open for international students. The guest lecture on the EU's perspective on bioenergy by Emma Wiesner is a good example on this, which many students thought was really good.

All three modules had one larger report and an oral presentation, which many students appreciated and thought they learned a lot from. One note was that these projects deserved some more credits, since they constituted the majority of the study time in this course. The biogas assignment had two scheduled feedback opportunities which were greatly appreciated, and it is therefore suggested that the other two projects could also provide some of these feedback opportunities.

The course had two study visits, which all students greatly appreciated and thought were very interesting. One complaint was that the transport to the visit in Stockholm should have been provided, and that the reimbursement for the students transportation costs should have been made more clear.

One unfortunate thing was that the majority of the lectures of the liquid block coincided with many exams at UU, thus meaning that very few students had the possibility to attend these. Many students, especially those studying the Energy system engineering program, hope that this is taken into consideration when scheduling future courses. But overall this course did well in showing the complexity of the different bioenergy systems and their relevance, and apart from the things mentioned above the students were satisfied with the course, with the teachers always being helpful, available and open for inputs, questions and discussions.

Kontakta support: support@slu.se - 018-67 6600