

# Wood Science and Technology SG0213, 30083.1819

15 Hp Pace of study = 100% Education cycle = Advanced Course leader = Anders Lindhagen

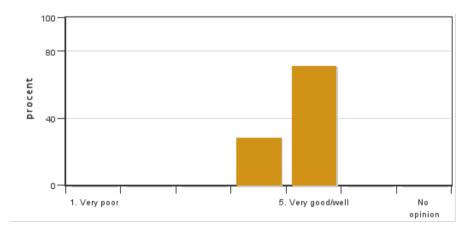
## **Evaluation report**

Evaluation period: 2019-03-18 - 2019-04-08

Answers 7 Number of students 11 Answer frequency 63 %

# **Mandatory standard questions**

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



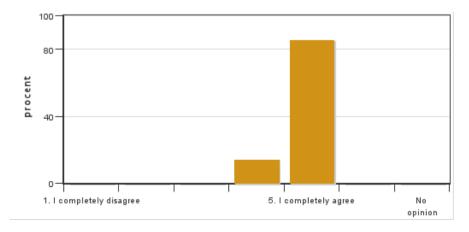
Answers: 7 Medel: 4,7 Median: 5

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

5: 5

No opinion: 0

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



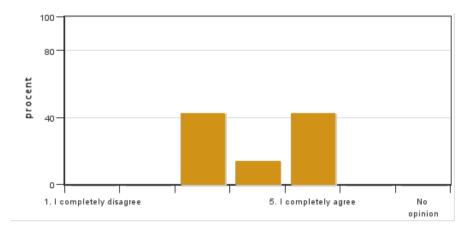
Answers: 7 Medel: 4,9 Median: 5

1: 0 2: 0 3: 0

3: 0 4: 1 5: 6

No opinion: 0

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



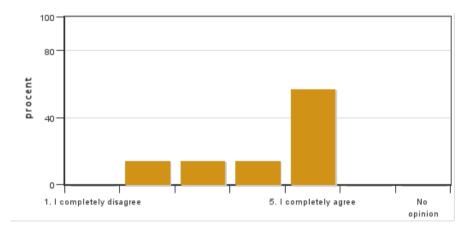
Answers: 7 Medel: 4,0 Median: 4

1: 0 2: 0

3: 3 4: 1 5: 3

No opinion: 0

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



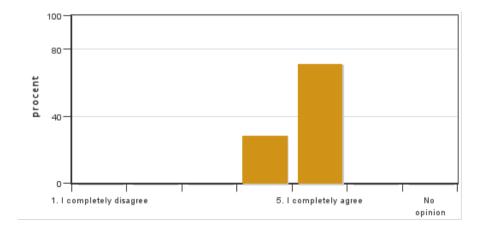
Answers: 7 Medel: 4,1 Median: 5

1: 0 2: 1

3: 1 4: 1 5: 4

No opinion: 0

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



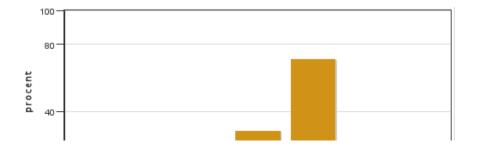
Answers: 7 Medel: 4,7 Median: 5

1: 0 2: 0 3: 0

4: 2 5: 5

No opinion: 0

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



Answers: 7 Medel: 4,7 Median: 5

1: 0 2· 0

2: 0 3: 0 4: 2

5: 5

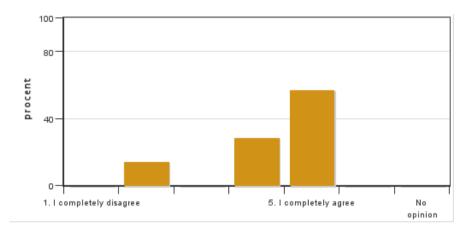
5. I completely agree

1. I completely disagree



No opinion

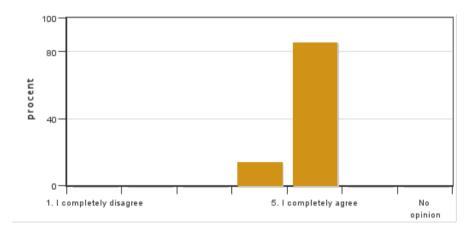
7. The physical learning environment (facilities, equipment etc.) has been satisfactory.



Answers: 7 Medel: 4,3 Median: 5 1: 0 2: 1 3: 0 4: 2 5: 4

No opinion: 0

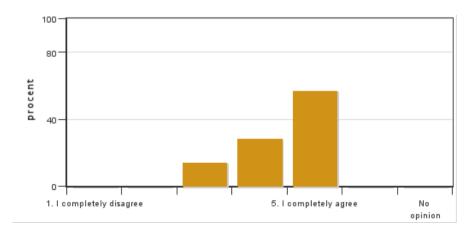
8. The examination(s) provided opportunity to demonstrate what I had learnt during the course (see the learning objectives).



Answers: 7 Medel: 4,9 Median: 5 1: 0 2: 0 3: 0 4: 1 5: 6

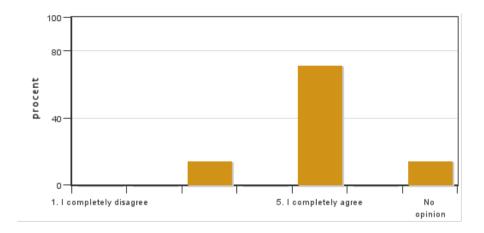
No opinion: 0

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



Answers: 7 Medel: 4,4 Median: 5 1: 0 2: 0 3: 1 4: 2 5: 4 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).



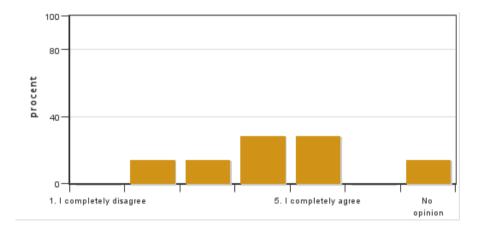
Answers: 7 Medel: 4,7 Median: 5

2: 0 3: 1 4: 0

5: 5

No opinion: 1

11. The course covered international perspectives.



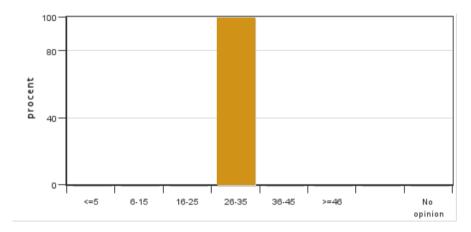
Answers: 7 Medel: 3,8 Median: 4

1: 0 2: 1 3: 1

4: 2 5: 2

No opinion: 1

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



Answers: 7 Medel: 30,0 Median: 26-35

≤5: 0 6-15: 0 16-25: 0 26-35: 7 36-45: 0 ≥46: 0 No opinion: 0

### Additional own questions

- 13. The course involved trips to sawmill, mechanical pulp mill and biorefinery to provide up to-date information on current industrial practices as well as to complement lectures. Please comment on whether the trips were commensal with their aim and worthwhile.
- 13. The course involved in-house practical exercises to complement lectures. Please comment on whether the number of practical exercises were sufficient or could be changed in anyway.

- 13. An important aim of the course was to combine conventional fundamental and applied knowledge of wood science and technology with new developments and thinking of lignocellulose uses such as biorefineries, biofuels etc. Please comment whether this was successful.
- 13. Our experience from previous courses have shown a very varied background and education of participating students. Efforts were made to start at rudimentary levels with transfer to more advanced learning throughout the course. Please comment whether you think this was helpful for yourself.

#### Course leaders comments

The Wood Science and Technology course ran between 25 January and 25 March and was attended by a wide array of international students from Germany, France, Czech Republic, Canada, Taiwan, Holland as well as Sweden (4) with very different backgrounds and some without prior knowledge on the subject area. This meant we needed to introduce the subject areas in simple terms leading on to aspects that were more complex in order for everyone to follow. Thus, it is positive from the general evaluation that we were successful.

#### Overall impression:

- 1)We performed the 15-week course with almost "in-house" lectures with only external lecturers used for three lectures on specialized aspects (from industry, KTH, SLU). This was appreciated by the students and allowed establishment of a good working relationship and avoided unnecessary repetition;
- 2)We employed conventional lectures/practicals in systematic in order to convey our knowledge. This was appreciated particularly by the international students who were accustomed to this approach;
- 3)We also used a program of seminars after each subject block where the students studied specific questions in smaller groups (3s/4s). Each group and each individual then gave presentations to the entire class. These 2-3 hour seminar classes were much appreciated by the international students who were accustomed to this approach;
- 4)Three study trips to a sawmill, pulp mill and Biotech company were organized and was highly appreciated by all students despite the fact that it involved long bus journeys;
- 5)We were impressed by the enthusiasm/dedication of the students and standard of their English. All moments of the course (lectures/practical's/study trips) were very well attended and only rarely were students absent through illness. This provided a very good teaching atmosphere to the course and the entire group functioned extremely well;
- 6)At the end of the course, we discussed once again the experience and level, which the students thought they had achieved. All students considered they had improved considerably even those who had experience in the subject area from their home countries;
- 7)In our previous 2018 course, there was some criticism of our lecture room that was in the old "Virkeslära" house. The lectures year this year were held in our own house and despite being slightly cramped was appreciated by the majority with everything in-house and freely available (seminar room, laboratory, coffee room etc.).
- 8)Literature. Our approach was with traditional lecturing with students receiving copies of our OHs in digital and hard copy form –either before/directly after lectures. OHs copies of lectures and literature for seminars were sent directly to the students and therefore all students received the same information at the same time. We prefer this approach rather depositing the materials in Ewald.

#### Things to change for 2020:

- 1)The study trips were very much appreciated (theory to industrial practice) so we plan to add a further industry visit to either a glulam and/or biotech facility in the 2020 course;
- 2)We had a fire in our impregnation room in January that meant these facilities were not available. Thus, we had accommodate another approach. Despite this, the practicals were performed satisfactory. Naturally new refurnished impregnation facilities will be available for the 2020 course;
- 3)According to the student's, evaluation there was some variability regarding our international perspective. We are not sure what this relates since our course concerns aspects of material science that are consistent to that conducted in most developed countries particularly in Europe. Sweden is probably one of the most developed in the field of secondary processing of raw biomass and wood products and is probably one of the best examples. Next year we plan to add further lectures on international CITES regulations and illegal logging in relation to Biomass characterization.

# **Student representatives comments**

No comments from the student representatives

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