Silviculture - the science of forest stand management
SG0272, 30256.2324

15 Hp
Pace of study = 100%
Education cycle = Advanced
Course leader = Eliza Maher Hasselquist, Ulrik Ilstedt

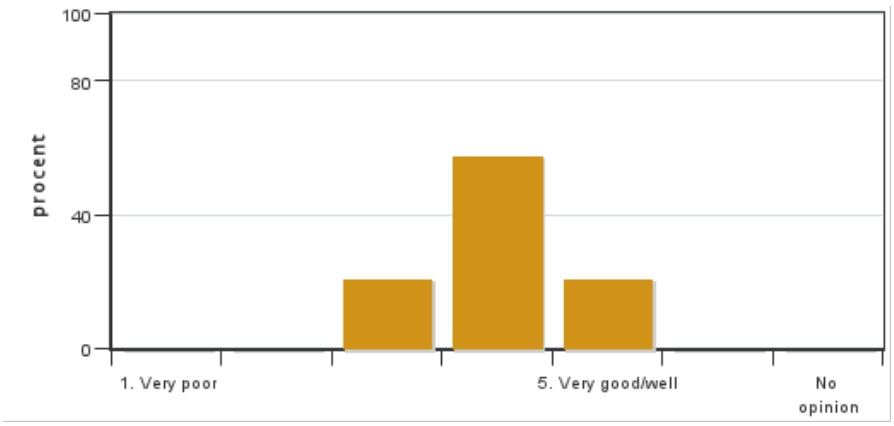
Evaluation report

Evaluation period: 2024-03-12 - 2024-04-02

Answers	19
Number of students	21
Answer frequency	90 %

Mandatory standard questions

1. My overall impression of the course is:

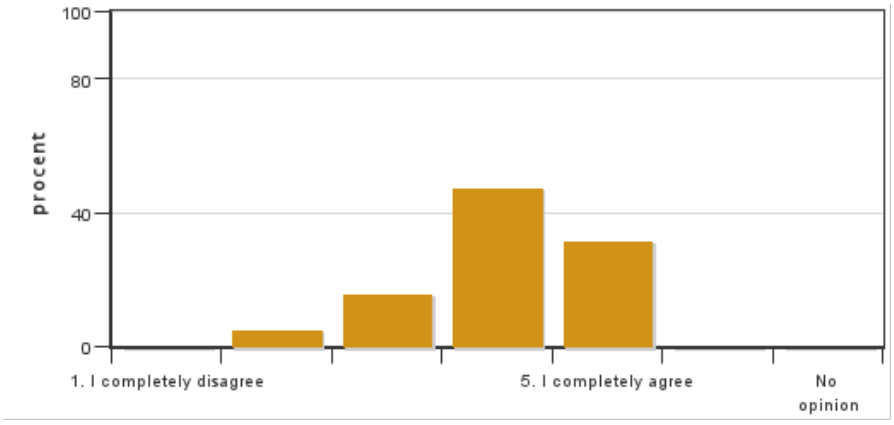


Answers: 19
Medel: 4,0
Median: 4

1: 0
2: 0
3: 4
4: 11
5: 4

No opinion: 0

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

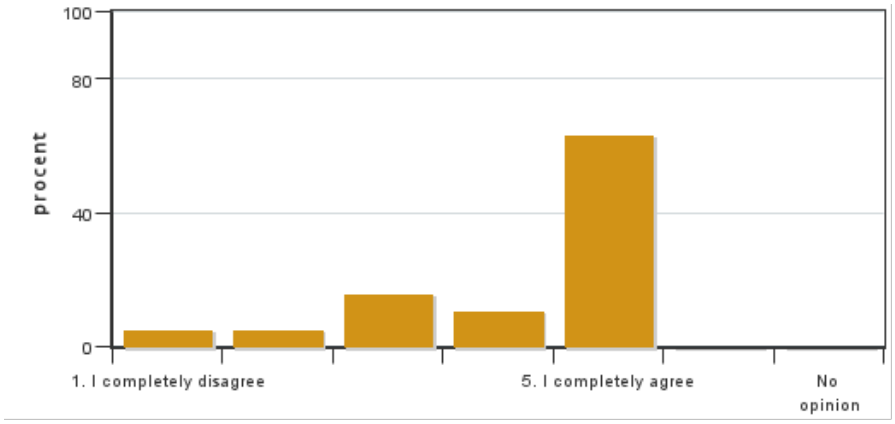


Answers: 19
Medel: 4,1
Median: 4

1: 0
2: 1
3: 3
4: 9
5: 6

No opinion: 0

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

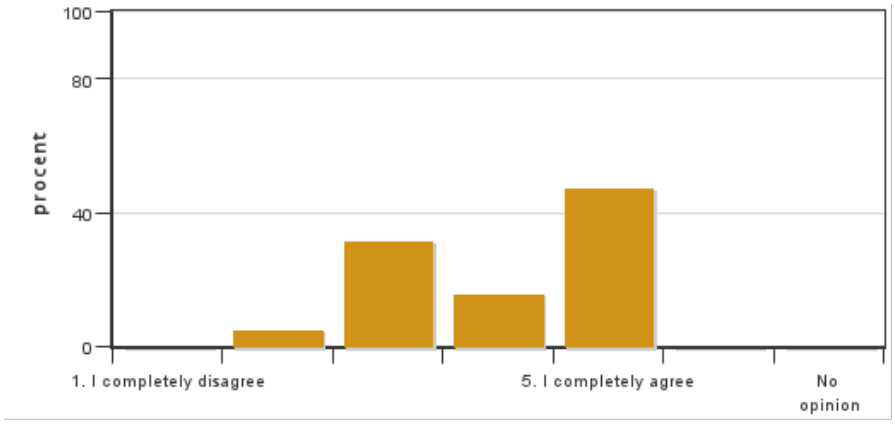


Answers: 19
Medel: 4,2
Median: 5

1: 1
2: 1
3: 3
4: 2
5: 12

No opinion: 0

4. The information about the course was easily accessible.

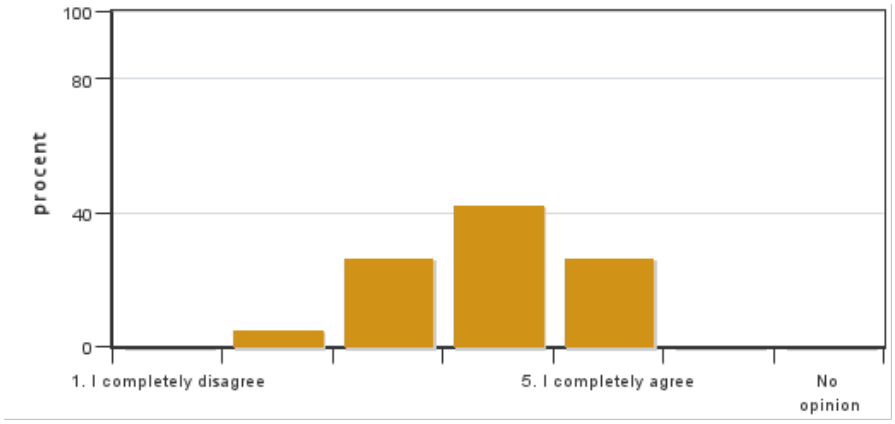


Answers: 19
Medel: 4,1
Median: 4

1: 0
2: 1
3: 6
4: 3
5: 9

No opinion: 0

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

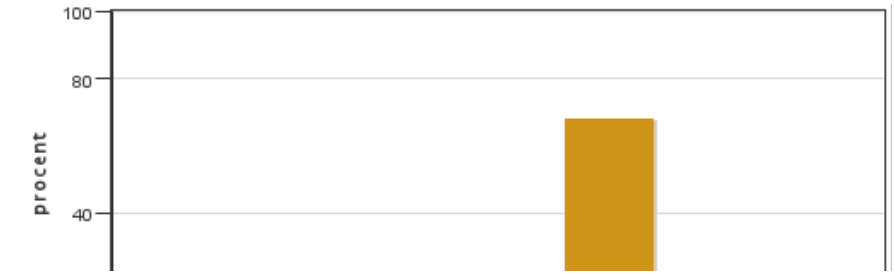


Answers: 19
Medel: 3,9
Median: 4

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

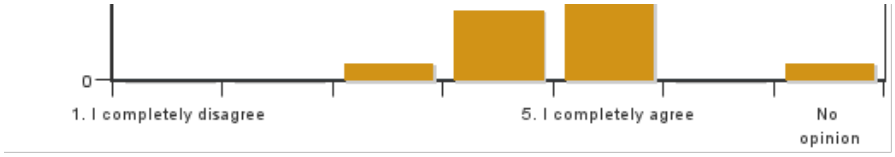
No opinion: 0

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



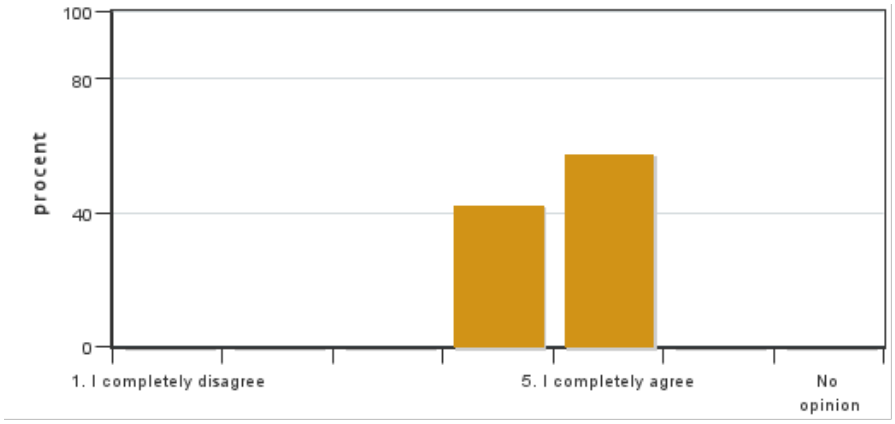
Answers: 19
Medel: 4,7
Median: 5

1: 0
2: 0
3: 1
4: 4
5: 13



No opinion: 1

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

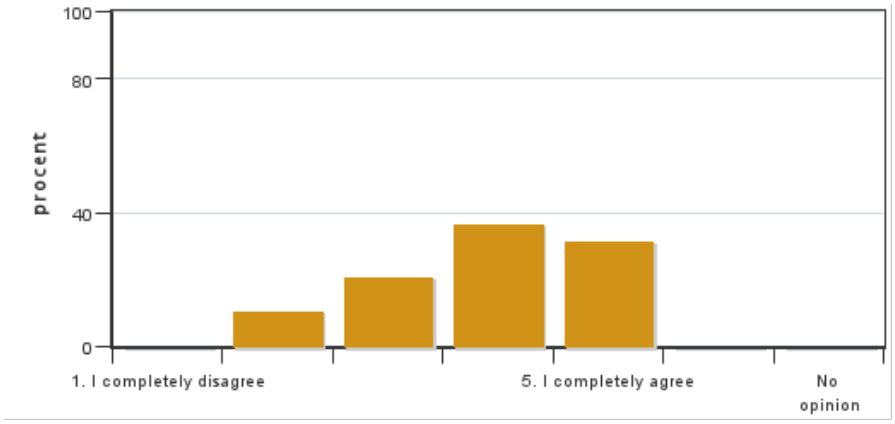


Answers: 19
Medel: 4,6
Median: 5

1: 0
2: 0
3: 0
4: 8
5: 11

No opinion: 0

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

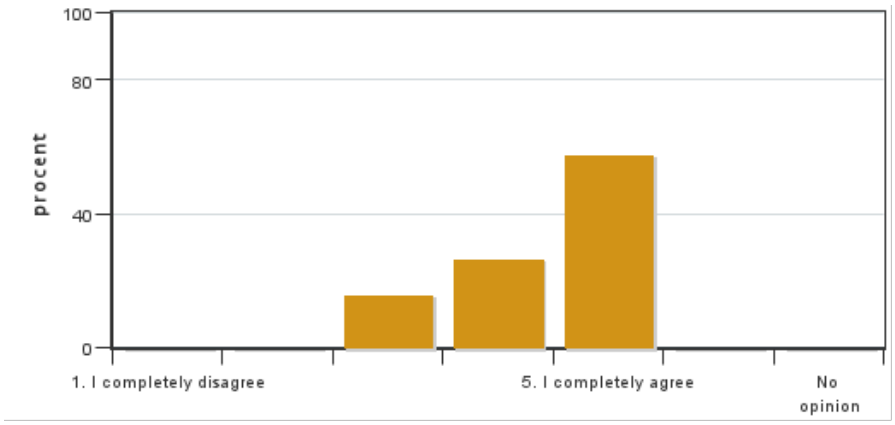


Answers: 19
Medel: 3,9
Median: 4

1: 0
2: 2
3: 4
4: 7
5: 6

No opinion: 0

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

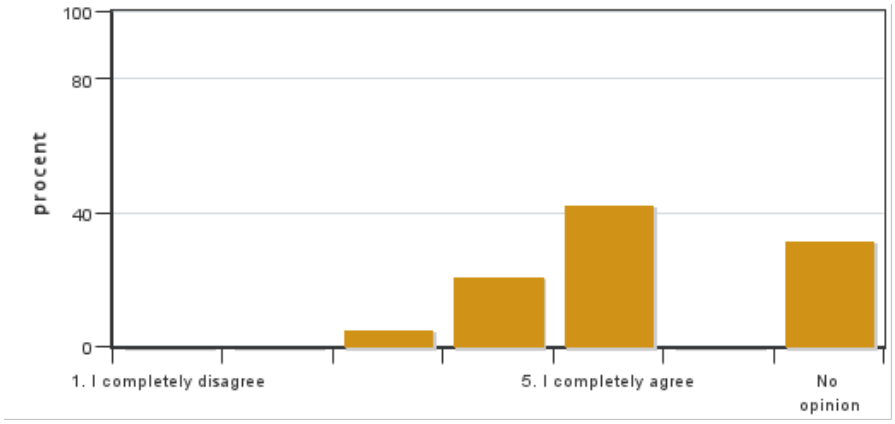


Answers: 19
Medel: 4,4
Median: 5

1: 0
2: 0
3: 3
4: 5
5: 11

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).

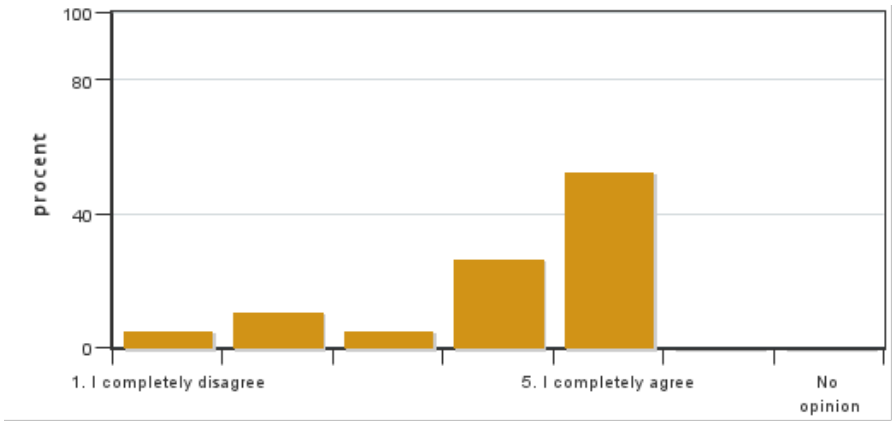


Answers: 19
Medel: 4,5
Median: 5

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

No opinion: 6

11. The course covered international perspectives.

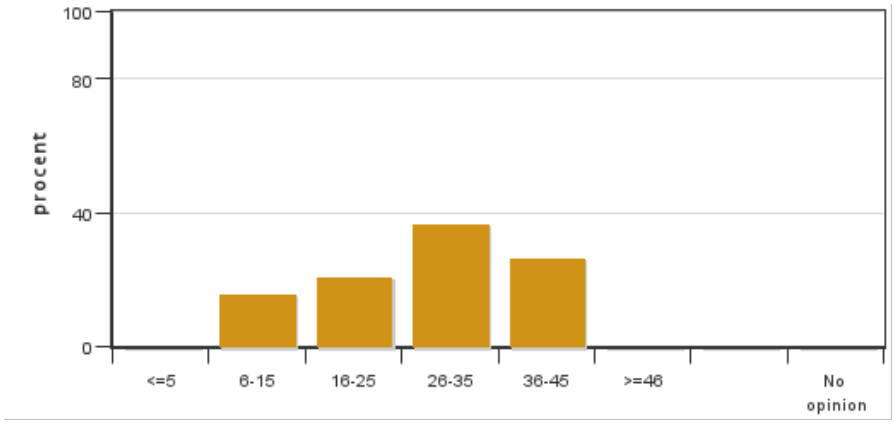


Answers: 19
Medel: 4,1
Median: 5

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

No opinion: 0

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



Answers: 19
Medel: 27,4
Median: 26-35

≤5: 0
6-15: 3
16-25: 4
26-35: 7
36-45: 5
≥46: 0

No opinion: 0

Course leaders comments

Since last year, the average score of the course has increased 11% (from 3.6 to 4.0) and the median score was stable (4). Last year, 60% of students gave the course a score of 4 or 5 and this year we had about 78% giving the course a score of 4 or 5. Additionally, the “answer frequency” (the number of students giving an evaluation) increased by 18% from 76% to 90%.

In general, and not uncommonly with this course, the Swedish forestry students felt like this was somewhat repetitive and others found it challenging. In addition to the diverse academic backgrounds of the group, they also were very international, with students originating from seven countries. The responses to the survey were also sometimes quite contradictory, likely owing to the diversity of the group.

Regarding information flow, we found a student representative early in the course and we kept continuous contact

with the student representative of the course to see how things are going and if there is any issues that need to be addressed during the course. We even adjusted the grading criteria in consultation with the student representative to align better with the other MS Program courses. Most students appreciated the teachers' communication through Canvas and email.

The Canvas page structure worked for some students, but not others. There are features in Canvas that we tried this year, i.e. the peer-review, that did not work well or malfunctioned (i.e. Canvas didn't assign reviewers to some students). We will look for other platforms to do this type of assignment in the future.

We were happy to learn that the lectures and literature were generally supported the student's learning and we are very proud that we have established a learning environment that is inclusive and respectful of differences of opinion (median of 5). Including a critical thinking exercise in the beginning of the course that emphasizes that diverse opinions are welcome was an important addition for setting the stage for the environment of the course.

Module 1 – Most students liked this module (mean of 4.2) with only one suggesting that it was repetitive for forestry students. One student suggested that it would be better to have prior knowledge of silviculture, and we will consider moving two days of Arne's module to the beginning of the course to try to bring everyone up to the same level in the beginning (as suggested by a student).

Module 2 – This was the second time this module was given and it was noted by the teacher (Alex) that the level of background knowledge in R was lower than the previous year. This was reflected in the feedback from the students. Although they said it was challenging and we need to allocate more time for it, the majority really liked this Module (average of 4.1). We are considering combining Module 2 and 3 and giving a bit more time for bring the students up to a basic R competency to be used in both modules. Coding in R is a general skill the students should learn.

Module 3 – This was the first year we used R in this model instead of Excel. The comments from students were very diverse, ranging from quite negative to “I want more of this!” This is likely due to the diverse student group. We hope that by merging Modules 2 and 3, this will ensure the students have a good base in R coding before entering these as well as make it feel more relevant.

Module 4 – This module changed considerably since last year focusing more on continuous cover forestry and following Arne Pommerening's new book. As suggested by at least one student, we will likely introduce a compulsory assignment in the CCF module to keep the students more accountable to attend lectures, as they apparently did not make good use of the academic freedom we granted them and did not attend many of the lectures.

Field trip associated with Module 4 – This was the just the second year that we included a field trip in this course because it takes place in the middle of winter (January – March). This year we moved the field trip to after the CCF module instead of taking place at the beginning of it. This worked well to have a better link from lectures to the field. We will likely keep the field trip for next year, but will try to work in more walking or an activity – measuring trees or something simple that can be done with snow on the ground - so that we prevent people from getting so cold.

Module 5 – In this module, students have to develop their own fictional (but reality based!) research proposal by doing a literature review, identifying knowledge gaps, developing relevant research questions and writing appropriate methods to answer those questions. This year we allowed students to do an individual assignment and this was very appreciated. They found it good practice before they start their MS research projects. We will double check to ensure that there are no colliding assignments with the multi-step process of this assignment that is running in the background of the course.

Finally, we expect that two new professors with specializations in forest management and forest regeneration will be hired by our department by the time this course starts next year. Given this, there will likely be other improvements to the course that are difficult to anticipate at this time.

Student representatives comments

As noted, the average score improved and the answer frequency increased. It certainly helped to have a class activity during which the students were requested to fill in the evaluation form.

Despite the course being repetitive for some students with a forestry background, there was a lot of discussion ongoing throughout the course about the differences in silvicultural practices between the different countries, which was beneficial to the course and appreciated by the students.

Communication throughout the course was considered to be very good and the course leaders listened to the student's concerns presented to them by the student representative and acted accordingly. For future improvement it might benefit the course if the course leader and student representative interaction is actively maintained as it was this year.

However, students found the Canvas page confusing at times due to differing information on the various pages.

Some students argued that the course was repetitive or that actual silvicultural management was covered insufficiently. However, at the start of the course it was clearly mentioned by the course leaders that the course

would cover the scientific aspect of silviculture instead of its applied management. Furthermore, it should be noted that when another (CCF) management style and its implementation was covered, students did not show up to the corresponding lectures. Generally, as mentioned by the course leaders, students appreciated the inclusive learning environment and the provided facilities.

Despite the first module being repetitive for some and for others possibly overwhelming due to the lack of prior knowledge, it was generally liked by all. The students appreciated the different silvicultural aspects presented to them by the various stakeholders/presenters. As mentioned by the course leader, this module can be improved next year by moving the first two lectures of Arne Pommerening towards the start of the first module because he covers silviculture in general really well in these lectures.

Students suggested to implement a R introduction course to bring their knowledge up to speed. Throughout this module students often exclaimed to not understand what was going on but showed great interest and wanted to improve their R skills. Students were provided with R scripts and ran them together with the module leader. However, little was explained about the scripts themselves and instead the focus lied on detailed explanations on the used formulas. This was well beyond the knowledge level of the majority of the students. This was noticed by the teacher, as written by the course leader, but not amply adjusted to by the teacher. As suggested by the course leader, merging modules 2 and 3 will hopefully benefit the students and provide them with the necessary skills to get the most out of this module.

As mentioned previously, student attendance during the fourth module was low and could be increased by introducing a mandatory assignment. The corresponding CCF field trip to Nydala was appreciated by the students but there is room for improvement. Good suggestions are mentioned by the course leader, however it should be with a focus to link the lectures to the field and not to keep students warm. Information about the study area could be provided in class instead of the field so that the focus lies more on the practical aspect.

Module 5 was greatly appreciated by the students, despite being challenging for some students. For some, this was the most beneficial assignment throughout the course and there was a feeling that this exercise properly prepares for a future in academics.

Hopefully, the new professors can help improve the course. Their specialisations seem to be topics students generally wanted to have included or covered more in the course. A good balance should be struck to satisfy both the students with a forestry background and the ones without.