



Soil water processes in agroecosystems MV0216, 10117.1819

15 Hp

Pace of study = 100%

Education cycle = Advanced -

Course leader = Elsa Coucheney

Evaluation report

Evaluation period: 2018-10-29 - 2018-11-19

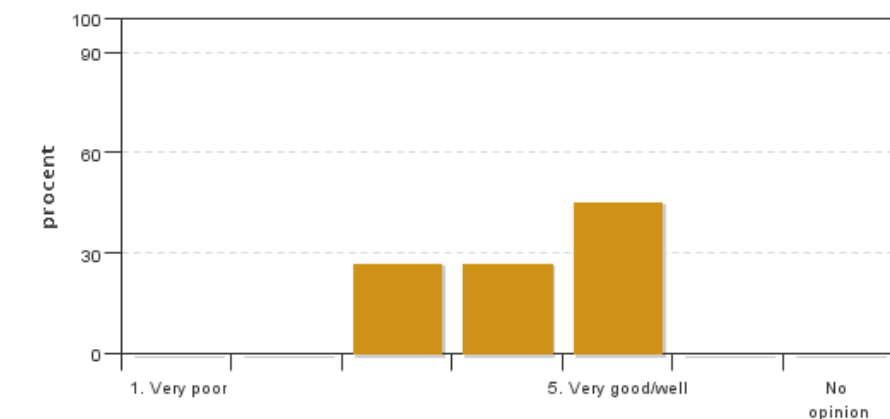
Answers 11

Number of students 16

Answer frequency 68 %

Mandatory standard questions

1. My overall impression of the course is:

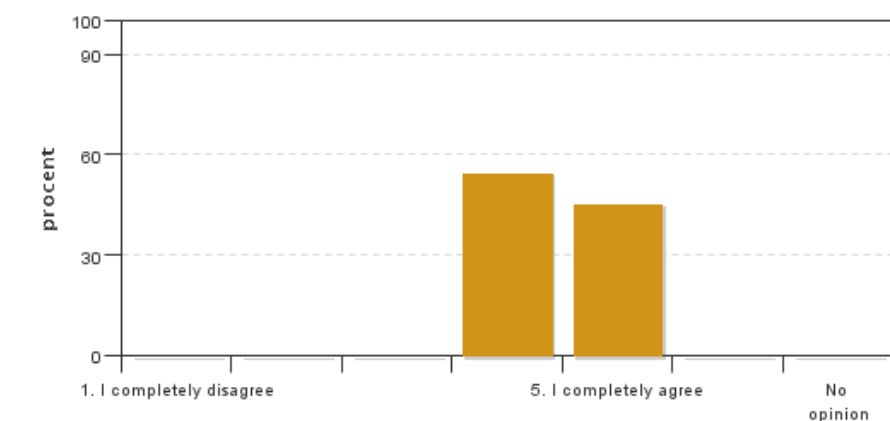


Answers: 11
Medel: 4,2
Median: 4

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

No opinion: 0

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

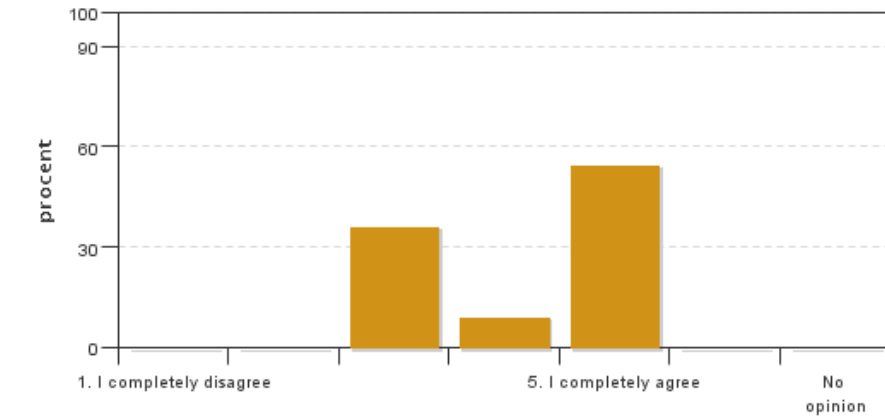


Answers: 11
Medel: 4,5
Median: 4

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

No opinion: 0

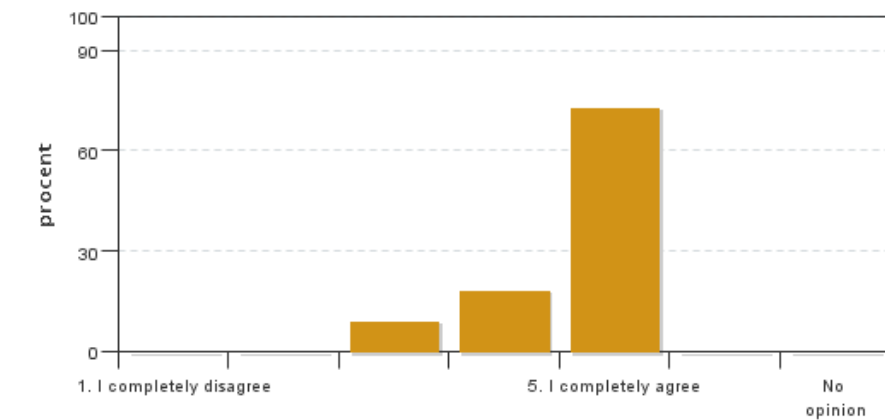
3. My prior knowledge was sufficient for me to benefit from the course.



Answers: 11
 Medel: 4,2
 Median: 5

1: 0
 2: 0
 3: 4
 4: 1
 5: 6
 No opinion: 0

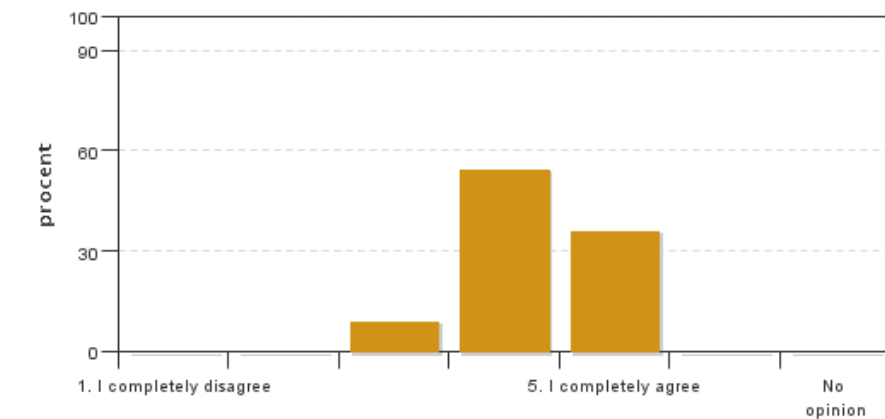
4. The information about the course was easily accessible.



Answers: 11
 Medel: 4,6
 Median: 5

1: 0
 2: 0
 3: 1
 4: 2
 5: 8
 No opinion: 0

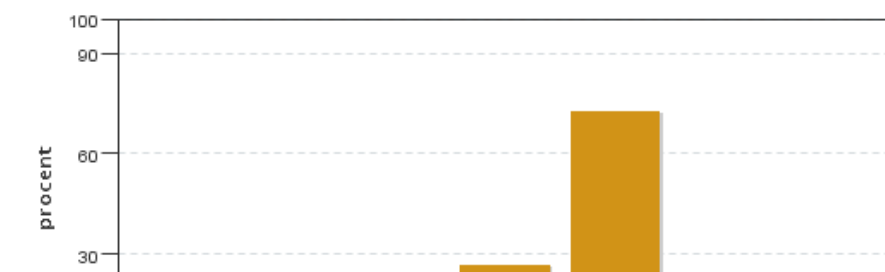
5. The various course components (lectures, course literature, exercises etc.) have supported my learning.



Answers: 11
 Medel: 4,3
 Median: 4

1: 0
 2: 0
 3: 1
 4: 6
 5: 4
 No opinion: 0

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



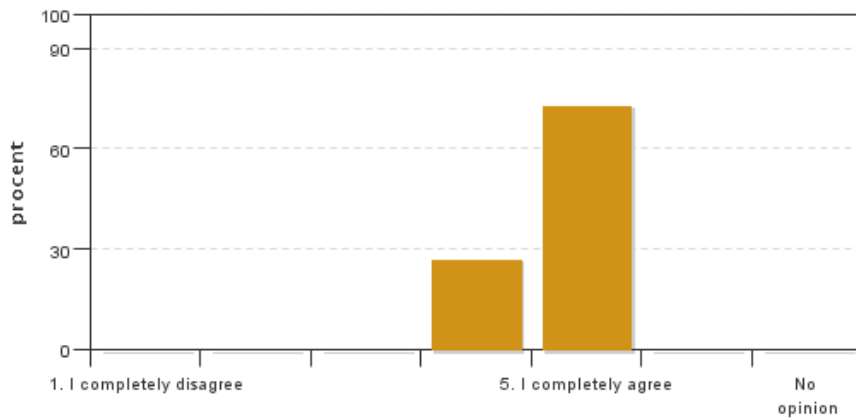
Answers: 11
 Medel: 4,7
 Median: 5

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



No opinion: 0

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

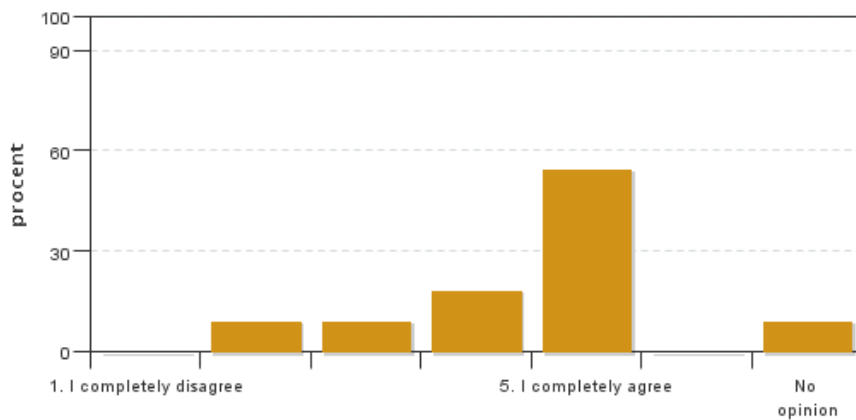


Answers: 11
Medel: 4,7
Median: 5

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

No opinion: 0

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

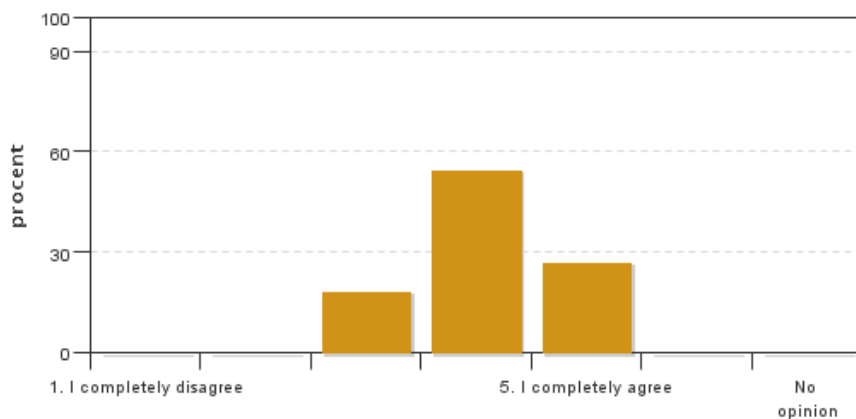


Answers: 11
Medel: 4,3
Median: 5

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

No opinion: 1

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

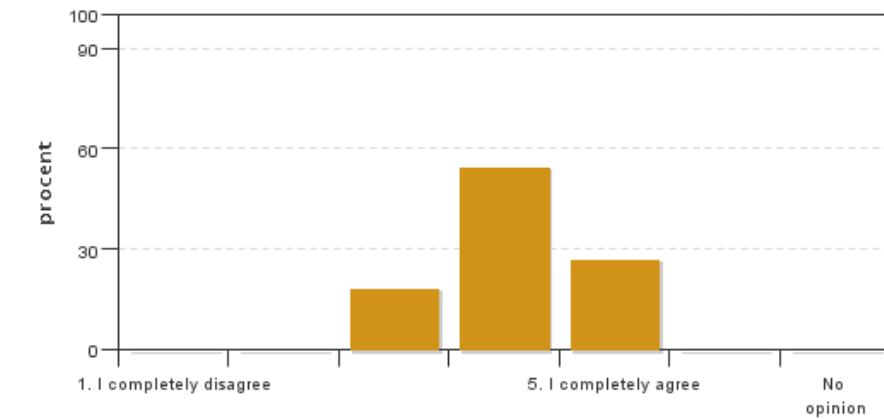


Answers: 11
Medel: 4,1
Median: 4

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

No opinion: 0

10. The course covered international perspectives.

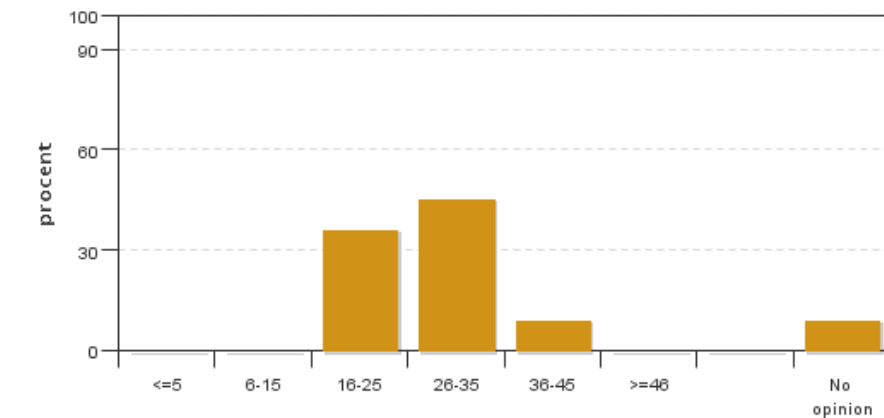


Answers: 11
 Medel: 4,1
 Median: 4

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

No opinion: 0

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

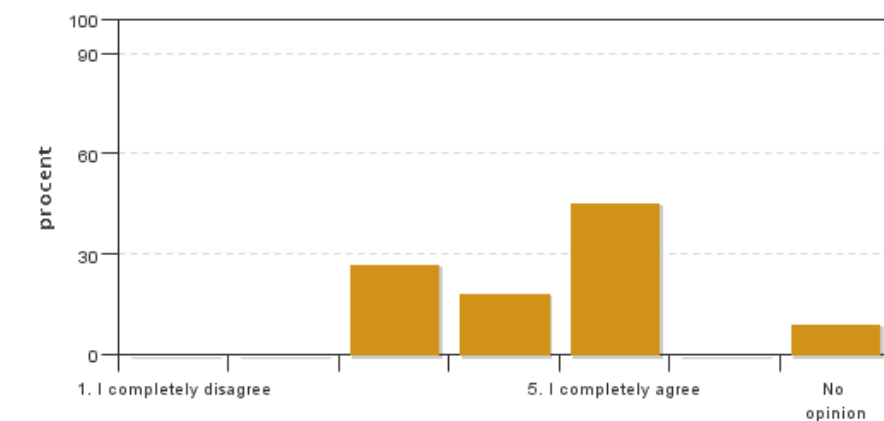


Answers: 11
 Medel: 27,0
 Median: 26-35

<=5: 0
 6-15: 0
 16-25: 4
 26-35: 5
 36-45: 1
 >=46: 0

No opinion: 1

12. 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: 11
 Medel: 4,2
 Median: 4

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

No opinion: 1

Course leaders comments

This year's master course was marked by relatively big changes from previous years. First, a new course leader was appointed and was decided to be independent from the course examiner, the latter also being the main teacher of the course. This allowed a nice collaboration to develop new aspects to the course and to work on making the course information more available to the students. Second, the **content was increased from 10 HP to 15 HP** which created an extra working load for the teaching team but was also a source of motivation. Three new lectures, two new computer exercises and a new learning activity in a form of a mini-workshop where students needed to read and summarize a scientific publication were included.

Students have **appreciated the complementarity between lectures and the reading of the course literature at**

home i.e. the planned schedule alternating lectures, reading at home and exercises seemed to have well-supported their learning and efforts will be made to keep this organisation in future years.

Moreover, teachers have adapted all computer exercises to a **new modelling software to the course (STELLA®)** which allowed simpler handling for the student and smoother supervision by the teachers during the learning activities (i.e. teachers had experienced annoying technical features complicating the task with the previous software). Thanks to this, the course compendium presenting the computer exercises and description of the mini-projects was also completely revised and improved; for example tasks and questions to the students were made more apparent and not mixed with theoretical aspects. The clarity of some parts of the compendium had been an issue for a few students last year; no specific feedback on the compendium was given this year.

The present **course evaluation was fulfilled by 68% of the students (11/16)** and the course leader is considering planning a timetable for doing this evaluation at the end of the course in order to include more students and also more comments which make interpretation of possible improvement easier. Moreover, the course leader is planning in the future to include a few new questions in order to assess in particular the quality of the new course components (e.g. mini-workshop), as well as of the course group assignments which represent each year a challenge for students and teachers; how to make it as equal and interesting for everyone, how to assess students?

Based on the course evaluation of the previous year, teachers also had worked on the availability of the course material (lectures notes available on FRONTER, FRONTER webpage and course webpage regularly updated) and this was appreciated by the students. The course leader **will transfer FRONTER data to CANVAS**. Additional efforts to summarize all assignments in a written form and distributed at the start of the course together with schedule will be made (see comment from one student) – this was actually done on FRONTER and taken up several times orally with the class. However, this was also the first year the course had 'FRONTER assignments' and the method and clarity can be improved.

To cover the **sustainability development aspects and international aspects**, the teaching team had invited new guest speakers giving overviews of international challenges regarding soil water management and climate change impact studies. The mini-workshop involved scientific publications covering studies within 4 different continents and dealing with adaptation of agriculture to climate change. Additional information, such as TED videos, scientific publications dealing with sustainable goals, ecosystem services and soil and agriculture sustainability were posted on FRONTER. Still, the evaluation shows that some students were missing a broader coverage of international and sustainable development aspects. The course leader is planning to be more active in presenting and discussing these data provided on FRONTER and efforts will be made to include more 'international' examples in lectures and exercises. Moreover, the development of a new mini-project is planned by a new teacher with wide and international experience on soil and water management aspects.

Some students also questioned whether their **prior knowledge** was sufficient for the course, but no comments were made so it is difficult for the teachers to propose additional documentation that could help students with a background further away from the course content. This year, a reference to a book about soil science which is available at the SLU library was given at the course introduction and on FRONTER but the teachers also realize that it is difficult for students to find time to catch up (because the course is a full time study). Additional reading could however be more emphasized and encouraged at the course start. We also got some comments about the level being too low for a MASTER course; teachers are aware about the heterogeneity in the students' background; some reflexion about how to stimulate learning of the best students could be considered in the future; e.g. additional exercises or literature reading.

As last year, a few students were not satisfied with the **examination** content as adequate to demonstrate what they had learnt. This was a little surprising because the course examiner with the assistance of the course leader had done a thorough revision of examination questions to try to make them closely aligned with the learning outcomes and course assessment criteria. No comments were given by the students so it is difficult to know the reason for this frustration. What the teachers are aware of is that the course provides many learning activities where the student can train and prove their ability to write reports, present orally, build models, work in groups, read and analyse articles which are not assess for the grading (in fact just fail / pass (grade 3) are designed on these items). This is partly because assessment is difficult for group work and also very time consuming. However, the course leader and course examiner are considering a revision of the assessment criteria and methods which could involve some reflective questions about the group works or model building / report writing (in oral or written form). An additional calculation exercises assignment, closer to the examination and covering broader aspects of the course was advised by a student comments. The timing of the mini-projects being very close to the examination has also been an issue for some students; this should be considered when planning future courses.

Finally, a few students were not convinced that the **gender and equality aspect** were actively included even though teachers had thought of this in their planning: for example, gender equality in the teaching team, gender equality in the authors of the documents posted on FRONTER. When taking up this issue with the student representative, no comments were given by the students on these aspects. These aspects could be reinforced when considering for example group work; e.g. how to decide on groups? At the moment teachers want students to choose the subject they would like to work with to increase their motivation and participation without any restriction on the gender equality. One aspect that might have been neglected is the allocation of speaking time between students and between students and teachers, but when taking this up with the student representative this was not confirmed. As a matter of fact, teachers have included more time for students to present or discuss together this year (several assignments) compared to previous years but the time allowed for questions on lectures could perhaps be increased (not confirmed by student representative).

The course leader and course examiner would like to **revise slightly the course syllabus and assessment criteria for the next year 2019** as the course has considerably evolved (15 HP instead of 10 HP). Maybe one

learning outcome describing more the methods and general skills trained and assessed could be included (see previous comment on student assessment). The dimension of 'climate change issues' for sustainable development aspects should perhaps also be included in the course syllabus.

Student representatives comments

The course Soil water Processes In Agro ecosystems provides (MV216;2018) provided in-depth knowledge on Soil and Water management, providing an understanding of physical processes regulating water and solute flows in soil system . Students expressed that the course content was related to the objective of the course there has been a good interaction between students and teachers and course materials were easily accessible . The teachings were well explained and students could easily relate the course literature to the lectures. They judged that there was sufficient time to study in between the lecture period i.e. students could read and also prepare ahead for the next class and this helped to understand the course better.

However, the students also expressed that the assessment criteria and grading (3-4-5)based so far solely on the final written examination could be improved. Some students expressed that the written examination had limited coverage of the full course, that some aspects were neglected. For example, it focused mainly on the theoretical aspects thereby leaving out the practical aspects such as STELLA modelling exercise (building models), oral presentation of results and literature study and mini projects has been proposed to be included in the examination/grading(those parts can only be passed or failed). In other words grades (3,4,5) could be included for Mini Projects and Oral Presentations.

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