



Geographic information systems for environmental and natural science studies

TE0017, 20123.2223

7.5 Hp

Pace of study = 100%

Education cycle = Advanced

Course leader = Anders Larsolle

Evaluation report

Evaluation period: 2023-01-08 - 2023-01-29

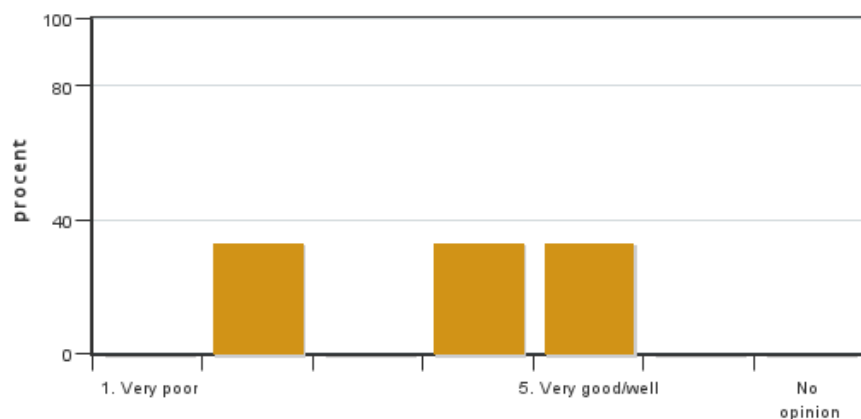
Answers 3

Number of students 20

Answer frequency 15 %

Mandatory standard questions

1. My overall impression of the course is:

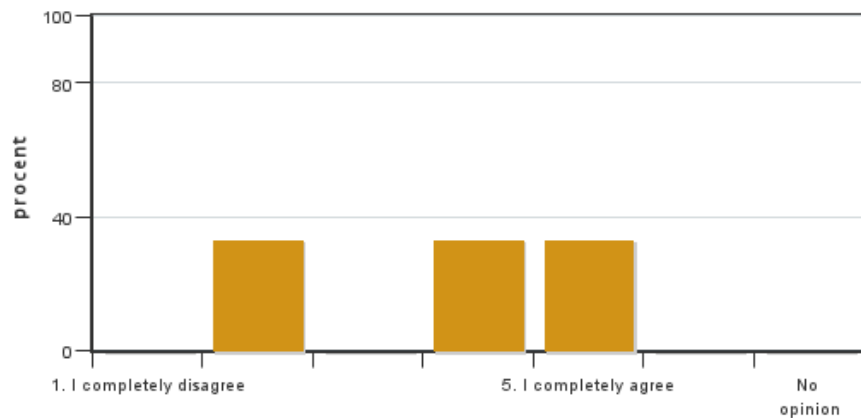


Answers: 3
Medel: 3,7
Median: 4

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

No opinion: 0

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

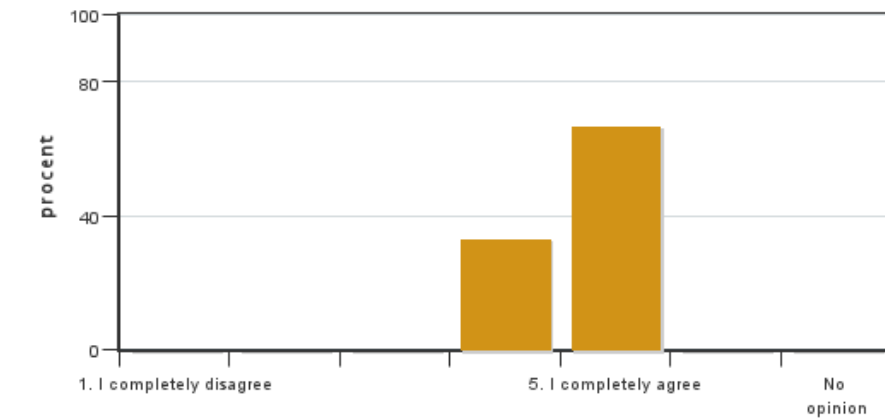


Answers: 3
Medel: 3,7
Median: 4

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

No opinion: 0

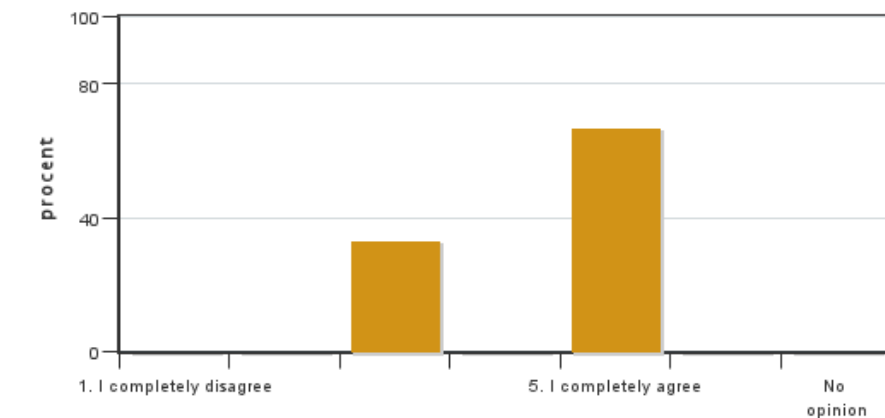
3. My prior knowledge was sufficient for me to benefit from the course.



Answers: 3
Medel: 4,7
Median: 5

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

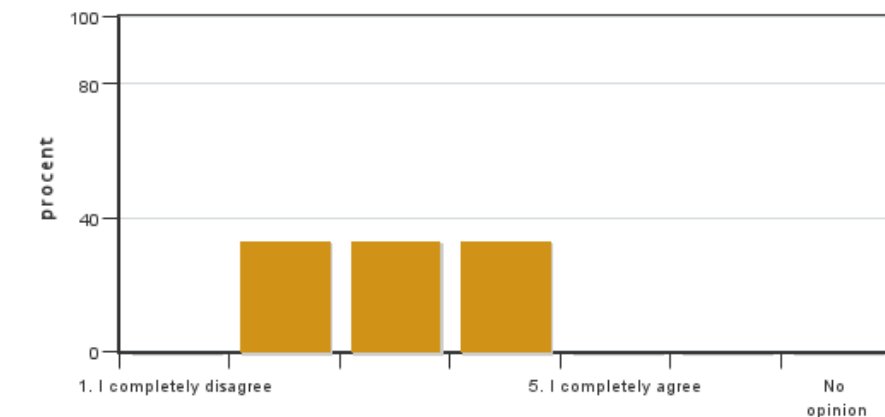
4. The information about the course was easily accessible.



Answers: 3
Medel: 4,3
Median: 5

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

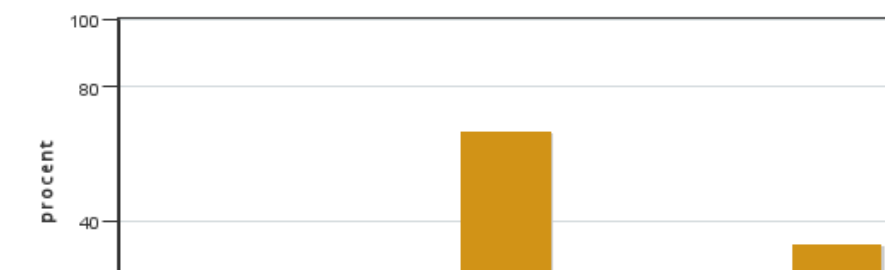
5. The various course components (lectures, course literature, exercises etc.) have supported my learning.



Answers: 3
Medel: 3,0
Median: 3

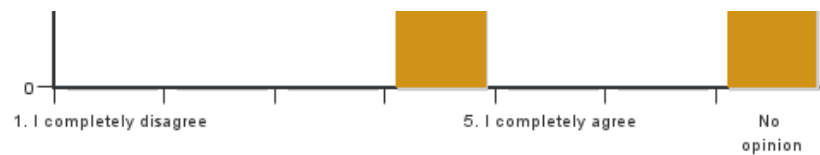
1: 0
2: 1
3: 1
4: 1
5: 0
No opinion: 0

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



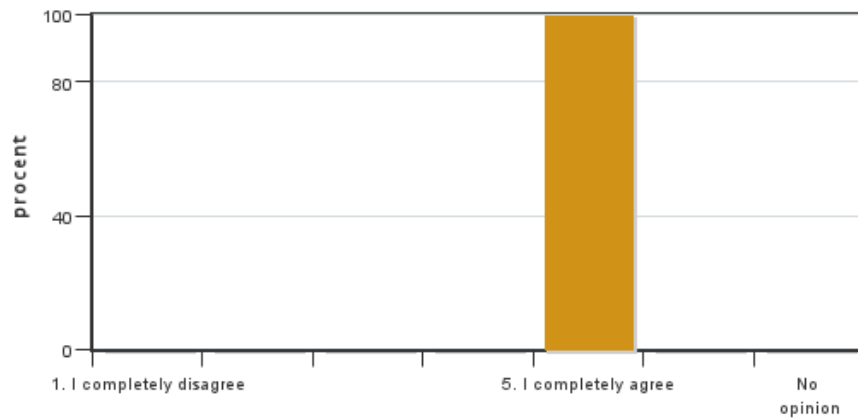
Answers: 3
Medel: 4,0
Median: 4

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



No opinion: 1

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



Answers: 3

Medel: 5,0

Median: 5

1: 0

2: 0

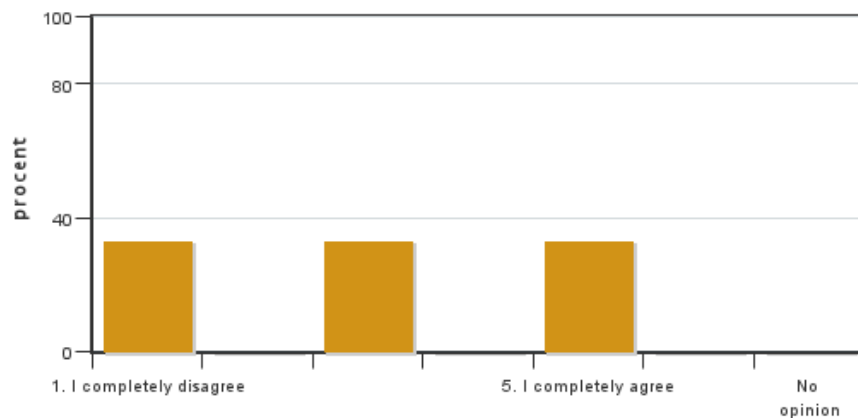
3: 0

4: 0

5: 3

No opinion: 0

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



Answers: 3

Medel: 3,0

Median: 3

1: 1

2: 0

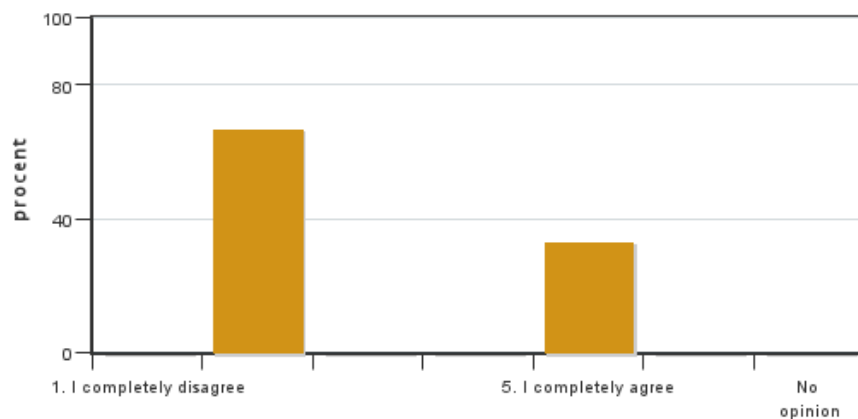
3: 1

4: 0

5: 1

No opinion: 0

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



Answers: 3

Medel: 3,0

Median: 2

1: 0

2: 2

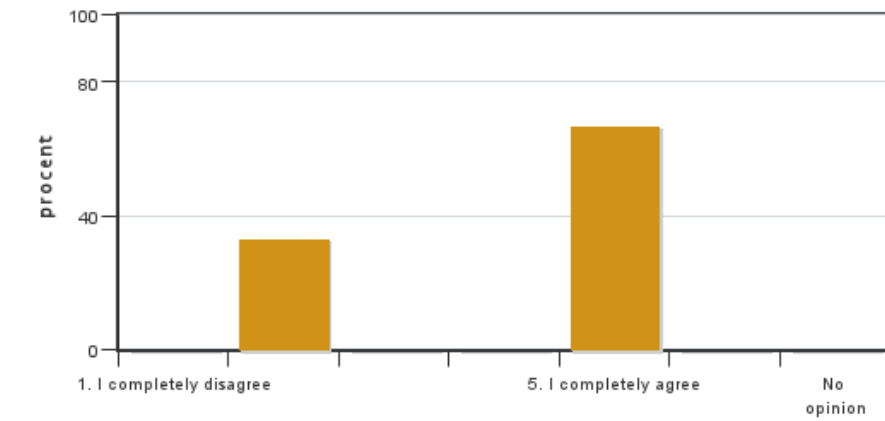
3: 0

4: 0

5: 1

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).

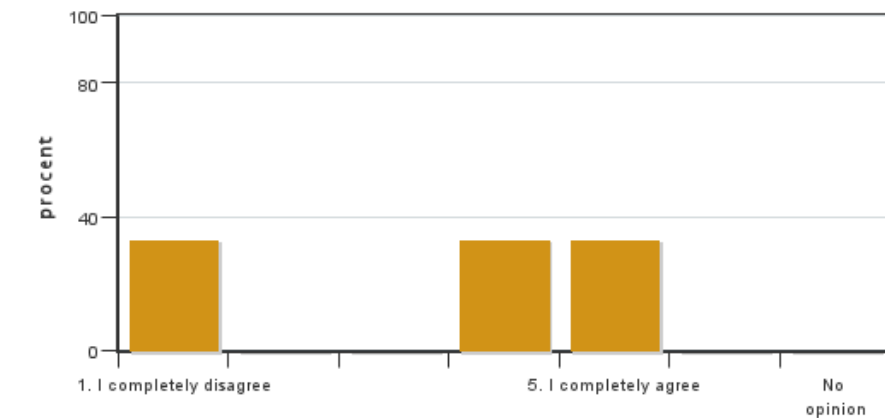


Answers: 3
Medel: 4,0
Median: 5

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

No opinion: 0

11. The course covered international perspectives.

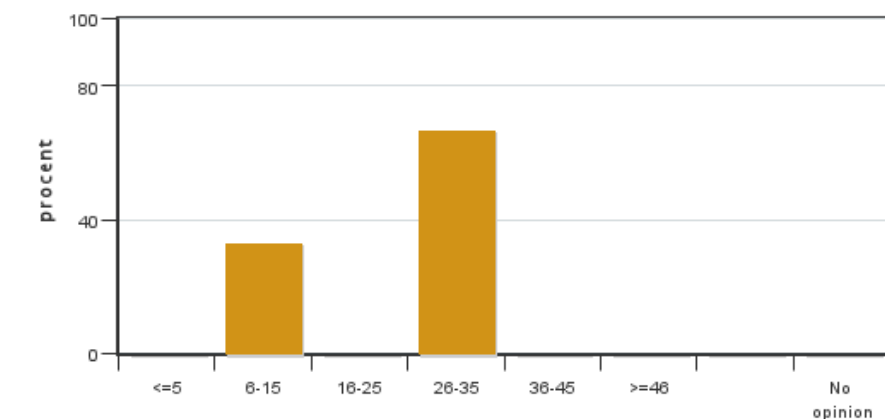


Answers: 3
Medel: 3,3
Median: 4

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

No opinion: 0

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



Answers: 3
Medel: 23,3
Median: 26-35

≤5: 0
6-15: 1
16-25: 0
26-35: 2
36-45: 0
≥46: 0

No opinion: 0

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



Answers: 3
Medel: 3,3
Median: 4

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

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

Course leaders comments

The GIS teaching team, which shares a long-time pedagogical interest, has continued to experiment with the pedagogical adaptations enforced by the Covid pandemic and is generally enthusiastic regarding the effectiveness of the resulting teaching, and also regarding the generally positive response from the students. It seems as if the pandemic has offered an incentive for change that was needed anyway, and as if a new era has been entered with the shift towards increasing possibilities for students to participate independently of their physical location. We doubt that anyone truly wants to dismiss such fundamental pedagogical improvements in post-Covid education. The pre-recorded video lectures can be provided at the pace that the students themselves choose no matter who or where they are and, from a logical point of view, it is far better that the videos are slow than too fast. As a follow-up to the video lectures, we have introduced a new teaching element where we meet live in-house and on-line to discuss the content of the lectures. At these meetings, we can focus entirely on deepening the theoretical discussions regarding the topics that the students themselves address. In addition, project guidance becomes comfortably available on-line as a complement to in-house supervision, where teachers even may take control of project team computers to demonstrate management and functionalities of complex software. The extensive exercise practice that characterizes GIS teaching has been provided online for more than ten years already.

As a keen educator, it is stimulating to be involved in the development of a new teaching paradigm. As part of the pedagogical method, it is of course particularly important to evaluate the results in order to learn and adjust the new methods introduced with on-line education. Likewise, it is also important to provide the physical spaces required to fulfil student demands regarding the many aspects of physical eye-to-eye contact. The educational element that we do not wish to perform on-line has turned out to be the written exams that seems to be better provided on-site in physical lecture halls.

Student representatives comments

The course "Geographic information systems for environmental and natural science studies" constitute a course proposed in MSc programs but also is offered as an independent course from the department of Energy and Technology of SLU.

According to the evaluation's answers of year 2022-2023 the number of participants were 3 out of 20. All the students belonged either in a MSc program or they were independent students or Erasmus exchange students. After the small participation in the evaluation process the results could not be objective as the comments formed only by 3 students.

First of all, the overall impression of the course is 3.7 (mean value) out of 5. A general comment is that the theoretical part could be improve as it is based on recorded lectures. On the other hand, the practical part is based on exercises on canvas and ESRI platform giving a more applicable knowledge. Nevertheless students who had already a basic GIS knowledge the course did not offer an extra knowledge.

The information of the course was easily accessible but according to a student a big drawback is the fact that the books that were provided for supporting the course are locked and it is needed to be bought. The only available data were the lecture notes and the internet or relative books from the libraries.

The various course components (lectures, course literature, exercises etc.) did not supported student's learning in a great extent (mean score: 3) as students considered that the lectures were very philosophical and by the recorded form were not so helpful in the understanding of discussed concepts.

The physical learning was excellent. During workshops there was assistance from the teachers. There were also available computer spaces during the course that the student could work even if he/she did not have GIS.

Regarding the examination and how exam demonstrated what students had learnt during the course, the grade is 3 (mean value) as student wrote that the exam is based on pure GIS definitions. Also, old exams provided during the course included concepts that were missed from the current lectures.

Furthermore, the course did not cover a lot the sustainable development aspect (environmental, social and/or financial sustainability) and also there was an imbalance in accordance with the gender and equality aspect regarding content as well as teaching practices.

Regarding the international perspective (mean 3.3) a student considers that the course covered many examples from all over the world but another student considers that the examples were based on Sweden only.

Finally, positive parts during teaching on distance were:

- Everything was good and nicely planned.
- Good connection on zoom through group sessions.
- The videos were easily accessible. Very good that someone could accelerate the viewing speed.

Problematic parts in teaching on distance were:

- Inconvenient and stressed during the group sessions as few students participated without any active participation and the teacher was repeated all the theory again. Students were feeling stressed to make questions even if they did not have.
- The courses recorded online are very slow.