Report - AH2915 - 2019-01-17

Respondents: 1
Answer Count: 1
Answer Frequency: 100.00 %

Please note that there is only one respondent to this form: the person that performs the course analysis.

Course analysis carried out by (name, e-mail):

Milan Horemuz, horemuz@kth.se

COURSE DESIGN

Briefly describe the course design (learning activities, examinations) and any changes that have been implemented since the last course offering.

The same set-up as previious year:
Lectures,
Computer labs
Project work including practical measurements
Seminar - presentation of a chosen topic based on literature review
Study visit

THE STUDENT'S WORKLOAD

Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?

Most of the students spent ca 20 hours per week, which is epected for a 7,5 cr course. There are two comments stating a reasonable workload.

THE STUDENTS' RESULTS

How well have the students succeeded on the course? If there are significant differences compared to previous course offerings, what can be the reason?

All students passed the oral exam with good grades. Most of the students got grade A or B. The worst grade was C.

OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?

The polar diagrams are quite even, which indicate a "normal" learning environment making no difference betweendifferent student groups.

ANSWERS TO OPEN QUESTIONS

What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?

The students appreciate field measurements, working with software, study visit and seminar. There are also positive comment on receiving feedback and support from the teacher. The student advice the future participant to start working on home assignment early.

PRIORITY COURSE DEVELOPMENT

What aspects of the course should primarily be developed? How could these aspects be developed in the short or long term?

There are some comments that there are too many moments in the course and recommendation to leave out the project presentations, since all students worked with the same data. For the next year we will try to work with different tasks for different groups. If that is not possible, then we skip the project presentations.

Kursdata 2019-01-17

AH2915 - Laserskanning, HT 2018

Kursfakta

Kursen startar:	2018 v.35
Kursen slutar:	2018 v.43
Antal högskolepoäng:	7,5
Examination:	LAB2 - Laboration, 2,0, betygsskala: P, F PRO2 - Projekt, 3,0, betygsskala: A, B, C, D, E, FX, F TEN1 - Tentamen, 2,5, betygsskala: A, B, C, D, E, FX, F
Betygsskala:	A, B, C, D, E, FX, F

Bemanning

Examinator:	Milan Horemuz <horemuz@kth.se>
Kursomgångsansvarig lärare:	Milan Horemuz <horemuz@kth.se>
Lärare:	Milan Horemuz <horemuz@kth.se>
Assistenter:	

Antal studenter på kursomgången

Förstagångsregistrerade:	0
Totalt registrerade:	13

Prestationer (endast förstagångsregistrerade studenter)

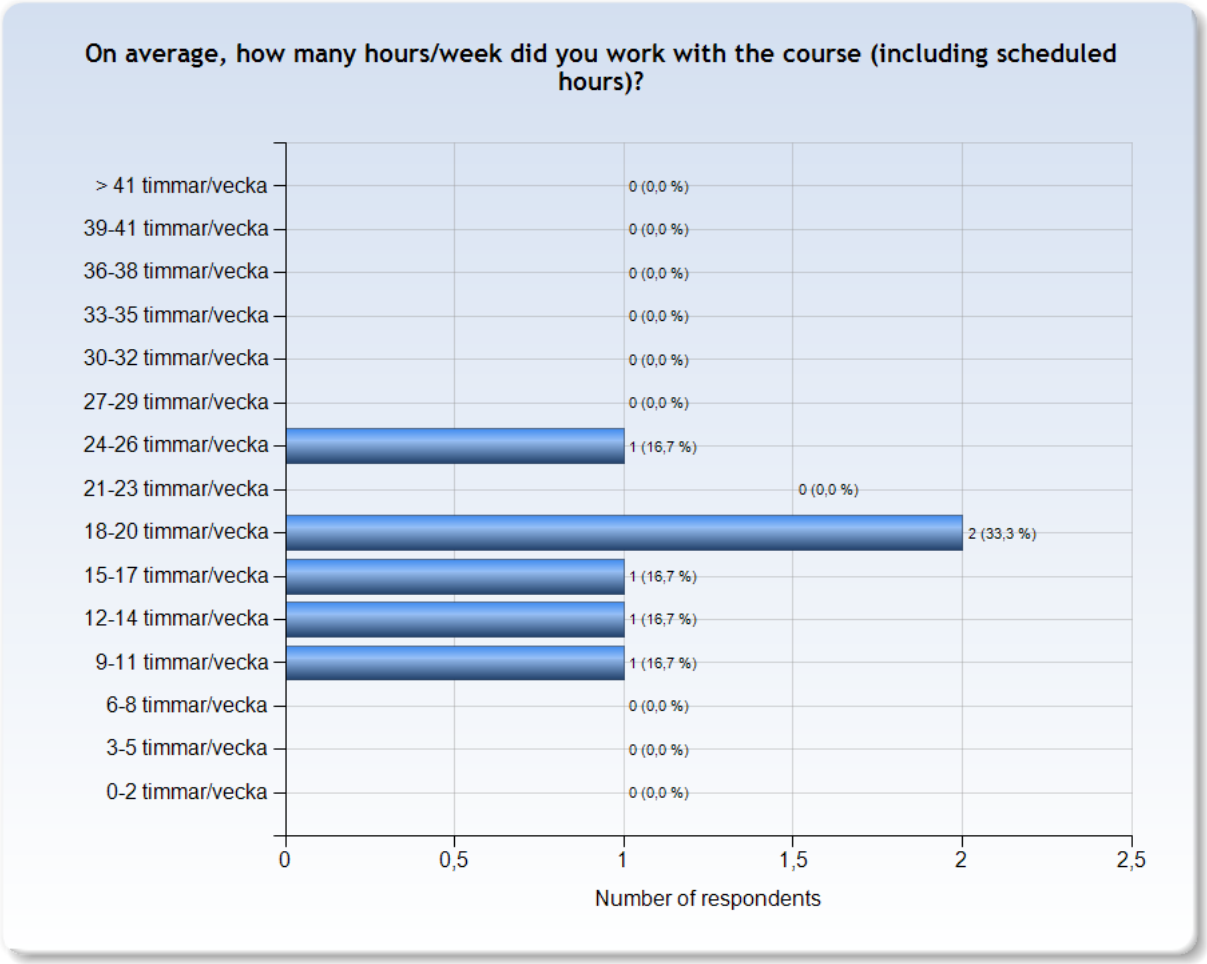
Examinationsgrad[1] [%]	*Det finns inga kursresultat inrapporterade*
Prestationsgrad[2] [%]	*Det finns inga kursresultat inrapporterade*
Betygsfördelning[3] [%, antal]	*Det finns inga kursresultat inrapporterade*

1 Andel godkända studenter
2 Andel avklarade poäng
3 Betygsfördelning för godkända studenter

AH2915 - 2018-10-29

Antal respondenter: 13
Antal svar: 6
Svarsfrekvens: 46,15 %

ESTIMATED WORKLOAD



Comments

Comments (I worked: 15-17 timmar/vecka)
A reasonable workload with respect to the level of the course

Comments (I worked: 18-20 timmar/vecka)
It is a quite satisfying course, with very detailed and practical skills and knowledge. From the time spent on the course, I think it's acceptable, not always relaxed, but the content leads me willing to put my time into it.

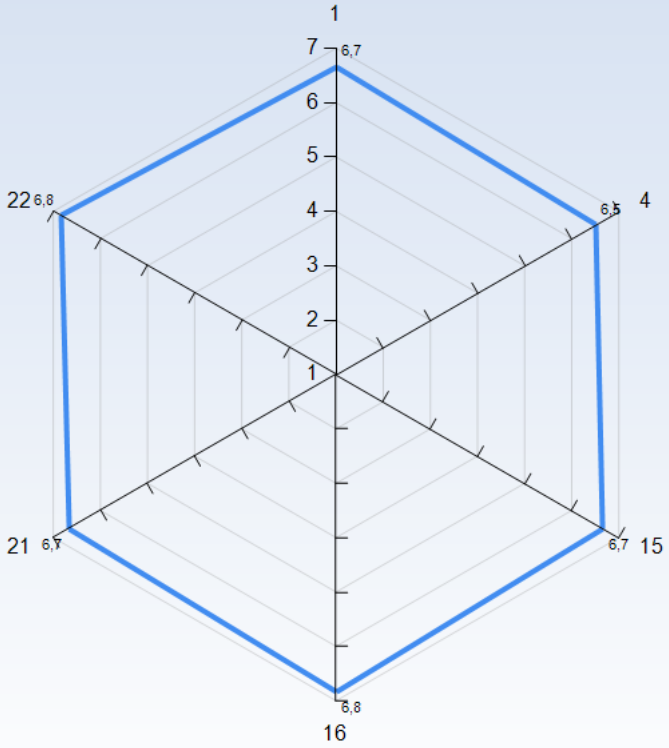
LEARNING EXPERIENCE

The polar diagrams below show the average response to the LEQ statements for different groups of respondents (only valid responses are included). The scale that is used in the diagrams is defined by:

1 = No, I strongly disagree with the statement
4 = I am neutral to the statement
7 = Yes, I strongly agree with the statement

Note! A group has to include at least 3 respondents in order to appear in a diagram.

Average response to LEQ statements - all respondents



Medelvärde

KTH Learning Experience Questionnaire v3.1.4

Meaningfulness - emotional level

Stimulating tasks

1. I worked with interesting issues (a)

Exploration and own experience

2. I explored parts of the subject on my own (a)
3. I was able to learn by trying out my own ideas (b)

Challenge

4. The course was challenging in a stimulating way (c)

Belonging

5. I felt togetherness with others on the course (d)
6. The atmosphere on the course was open and inclusive (d)

Comprehensibility - cognitive level

Clear goals and organization

7. The intended learning outcomes helped me to understand what I was expected to achieve (e)
8. The course was organized in a way that supported my learning (e)

Understanding of subject matter

9. I understood what the teachers were talking about (f)
10. I was able to learn from concrete examples that I could relate to (g)
11. Understanding of key concepts had high priority (h)

Constructive alignment

12. The course activities helped me to achieve the intended learning outcomes efficiently (i)
13. I understood what I was expected to learn in order to obtain a certain grade (i)

Feedback and security

14. I received regular feedback that helped me to see my progress (j)
15. I could practice and receive feedback without being graded (j)
16. The assessment on the course was fair and honest (k)

Manageability - instrumental level

Sufficient background knowledge

17. My background knowledge was sufficient to follow the course (f)

Time to reflect

18. I regularly spent time to reflect on what I learned (l)

Variation and participation

19. The course activities enabled me to learn in different ways (m)
20. I had opportunities to influence the course activities (m)

Collaboration

21. I was able to learn by collaborating and discussing with others (n)

Support

22. I was able to get support if I needed it (c)

Learning factors from the literature that LEQ intends to examine

We tend to learn most effectively (in ways that make a sustained, substantial, and positive influence on the way we think, reflect, act or feel) when:

a) We are trying to answer questions, solve problems or acquire skills that we find interesting, exciting or important

b) We are able to speculate, test ideas (intellectually or practically) and learn from experience, even before we know much about the subject

c) We are able to do so in a challenging and at the same time supportive environment

d) We feel that we are part of a community and believe that other people have confidence in our ability to learn

e) We understand the meaning of the intended learning outcomes, how the environment is organized, and what is expected of us

f) We have adequate prior knowledge to deal with the current learning situation

g) We are able to learn inductively by moving from concrete examples and experiences to general principles, rather than the reverse

h) We are challenged to develop a true understanding of key concepts and gradually create a coherent whole from the content

i) We believe that the work we are expected to do will help us to achieve the intended learning outcomes

j) We are able to try, fail, and receive feedback before, and separate from, each summative assessment of our efforts

k) We believe that our work will be considered in an honest and fair way

l) We have sufficient time for learning and devote the time needed to do so

m) We believe that we have control over our own learning, and not that we are being manipulated

n) We are able to collaborate with other learners struggling with the same problems

Literature

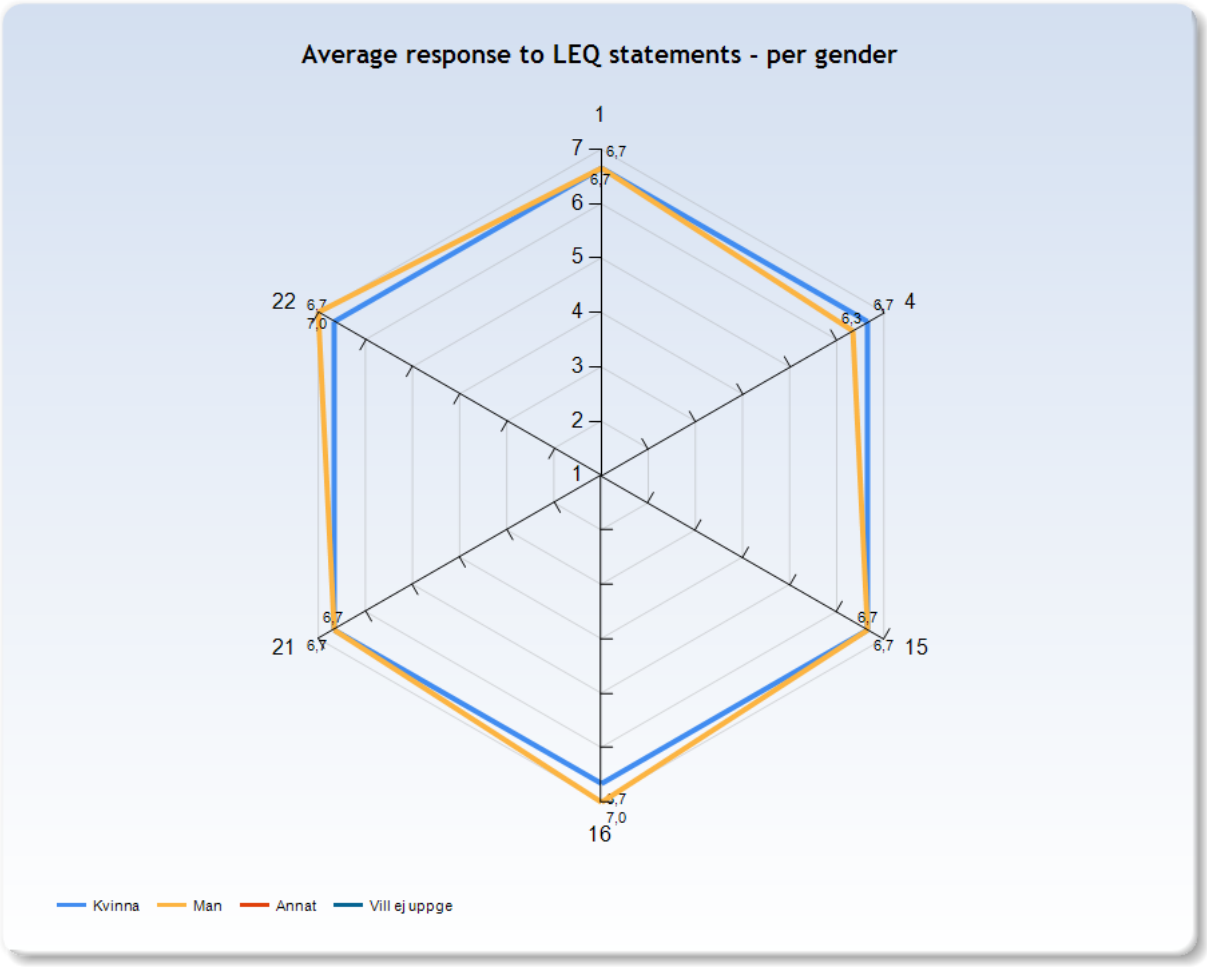
Bain, K. (2004). *What the Best College Teachers Do*, Chapter 5, pp. 98-134. Cambridge: Harvard University Press.

Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

Elmgren, M. & Henriksson, A-S. (2014). *Academic Teaching*, Chapter 3, pp. 57-72. Lund: Studentlitteratur.

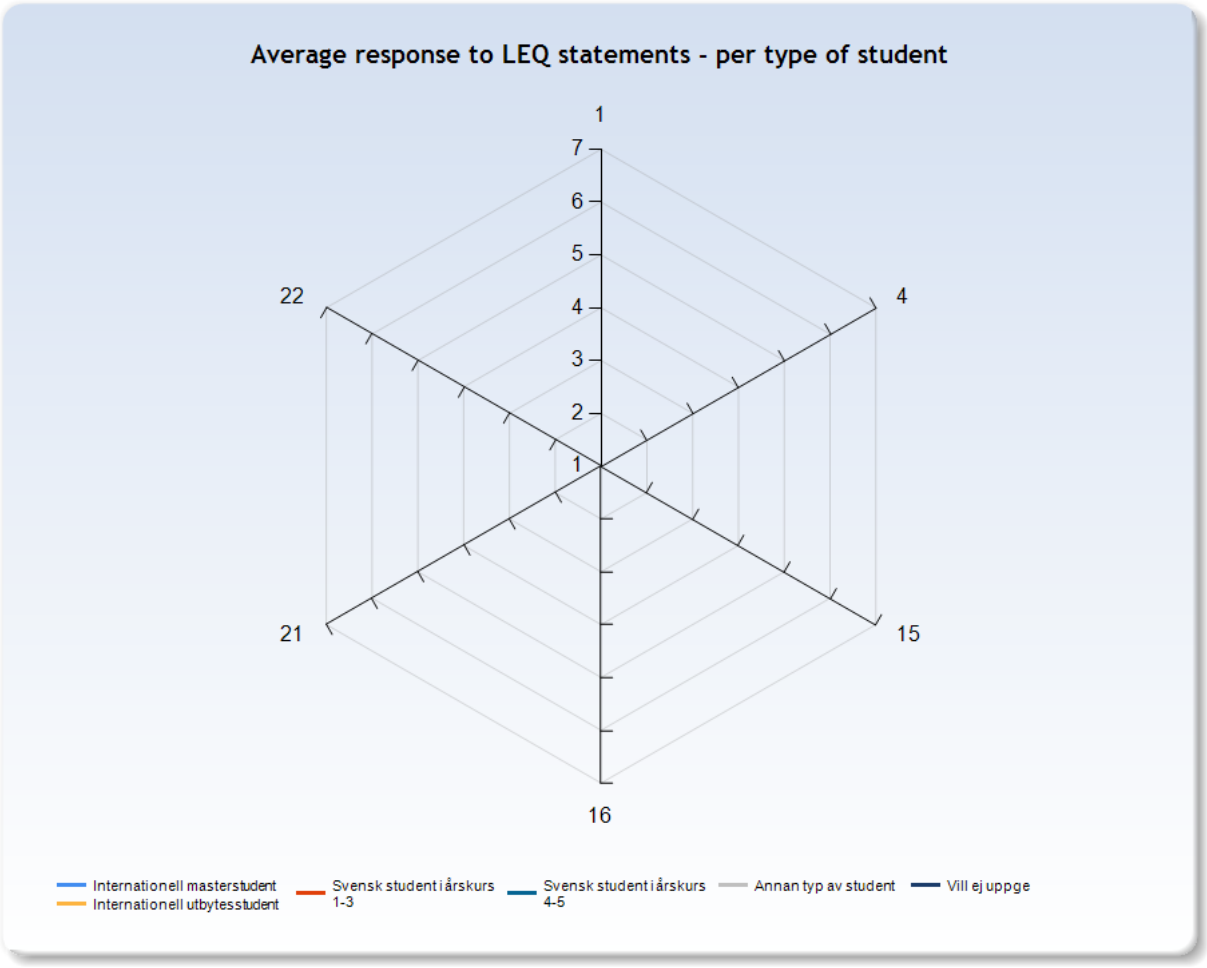
Kember, K. & McNaught, C. (2007). *Enhancing University Teaching: Lessons from Research into Award-Winning Teachers*, Chapter 5, pp. 31-40. Abingdon: Routledge.

Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.



Comments

Comments (I am: Kvinna)
Ingen könsskillnad gjordes bland elever.

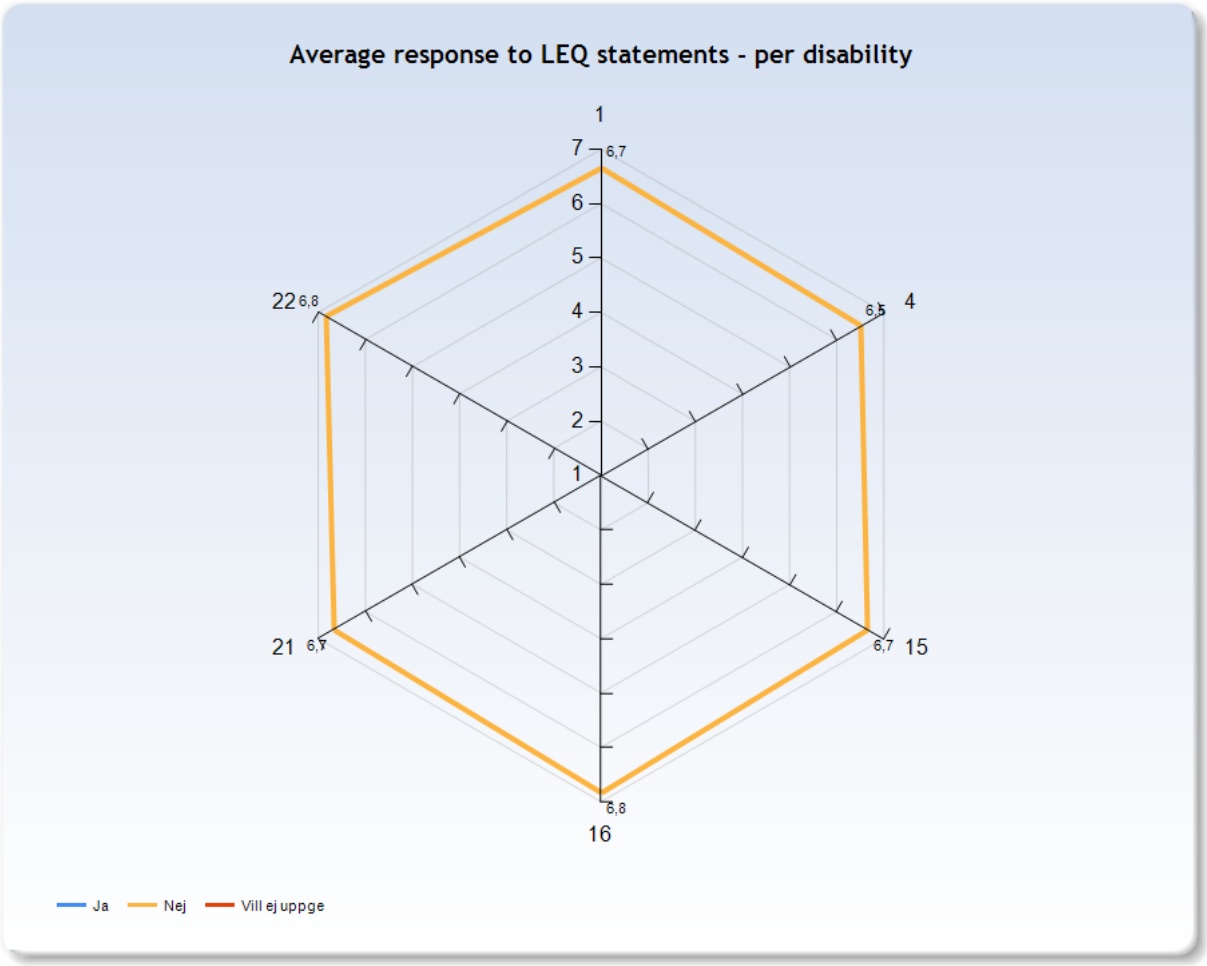


Comments

Comments (I am: Internationell utbytesstudent)
Really enjoyed the course since it is a good addition to the courses at my home university.

Comments (I am: Svensk student i årskurs 4-5)
ingen Skillnad gjordes på studenter baserat på ursprung.

Comments (I am: Annan typ av student)
Swedish student only studying the Master (Transport and Geoinformation Technology). Have previous Master in Engineering Physics at Chalmers (1993).


Average response to LEQ statements - per disability
1
7
6
5
4
3
2
1
6,7
4
6,5
15
6,7
16
6,8
21
6,7
22
6,8
Ja
Nej
Vill ej uppge

Comments

GENERAL QUESTIONS

What was the best aspect of the course?

What was the best aspect of the course? (I worked: 9-11 timmar/vecka)
- so many different tasks including practical surveys and measurements

What was the best aspect of the course? (I worked: 12-14 timmar/vecka)
Good lectures, Nice project

What was the best aspect of the course? (I worked: 15-17 timmar/vecka)
The course gave a good in-depth overview of what laser scanning is. What I liked the most about it was the combination of theory and practice, with several field trips, a project and experiments during labs.

What was the best aspect of the course? (I worked: 18-20 timmar/vecka)
Att föreläsningar, labbar och projekt hängde väl ihop och kändes genomtänkt.
Everything sincerely.

What was the best aspect of the course? (I worked: 24-26 timmar/vecka)
Many good laborations with educating practical work.

What would you suggest to improve?

What would you suggest to improve? (I worked: 9-11 timmar/vecka)
- project presentations should be changed to be more interesting

What would you suggest to improve? (I worked: 12-14 timmar/vecka)
Maybe a bit unneccessary much tasks with both oral exam, home assignment, project, project seminar, research topic presentation and labs.

I suggest skipping the presentation of the project, since we all Did the same thing, and instead have just a seminar where the issues of the project is discussed in a group. Maybe skipping the presentation of the chipsen topic as well so one Can focus on the labs, project and home assignment whist is where most learning skills are gathered.

What would you suggest to improve? (I worked: 15-17 timmar/vecka)
An idea to make the project more interesting would be to have all groups work with different point clouds, to later combine them into a larger general model.

What would you suggest to improve? (I worked: 18-20 timmar/vecka)
Sluta trycka in så många moment i kursen. Läsa och presentera artikel, homeassignment samt muntlig tentamen utöver labbar, projekt samt presentation av projekt gav en stor stress under kursen.

Seminariet efter projektet är också bättre att göra på ett annat sätt. Istället för att varje grupp presenterar hur de utförde arbetet (där alla gjorde på nästan samma sätt) kanske frågor om vad som var utmanande, vad som skulle gjorts annorlunda etc. förberedas och att man sitter ner tillsammans och diskuterar detta tillsammans med Milan.
For the project work, each group takes similar but not the same tasks, so that could be more interesting.

What would you suggest to improve? (I worked: 24-26 timmar/vecka)
Divide the Home Assignment in several deadlines aligned with related lectures and labs.

What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 9-11 timmar/vecka)
- early starting with the home assignment tasks

What advice would you like to give to future participants? (I worked: 15-17 timmar/vecka)
Keep up with the theory of the course and participate strongly in the lab assignments. This is the best preparation for the home assignment and oral exam. Secondly, consider the fact that the home assignment is time consuming and considers all aspects treated within the course.

What advice would you like to give to future participants? (I worked: 18-20 timmar/vecka)
Börja med HomeAssignement när Milan säger det.
Take part in everything!

What advice would you like to give to future participants? (I worked: 24-26 timmar/vecka)
Start early with the Home Assignments.

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 12-14 timmar/vecka)
Milan should be given credits for bring a very good, understanding and informative teacher, well ahead of some other teachers of the institution!

Is there anything else you would like to add? (I worked: 18-20 timmar/vecka)
Sett till alla lärare involverade i kurserna på Masterprogrammet TTGTM är Milan Horemuz den mest engagerade, förstående och pedagogiska lärare som håller i kurser, och flera andra lärare borde ta efter hans sätt att jobba.

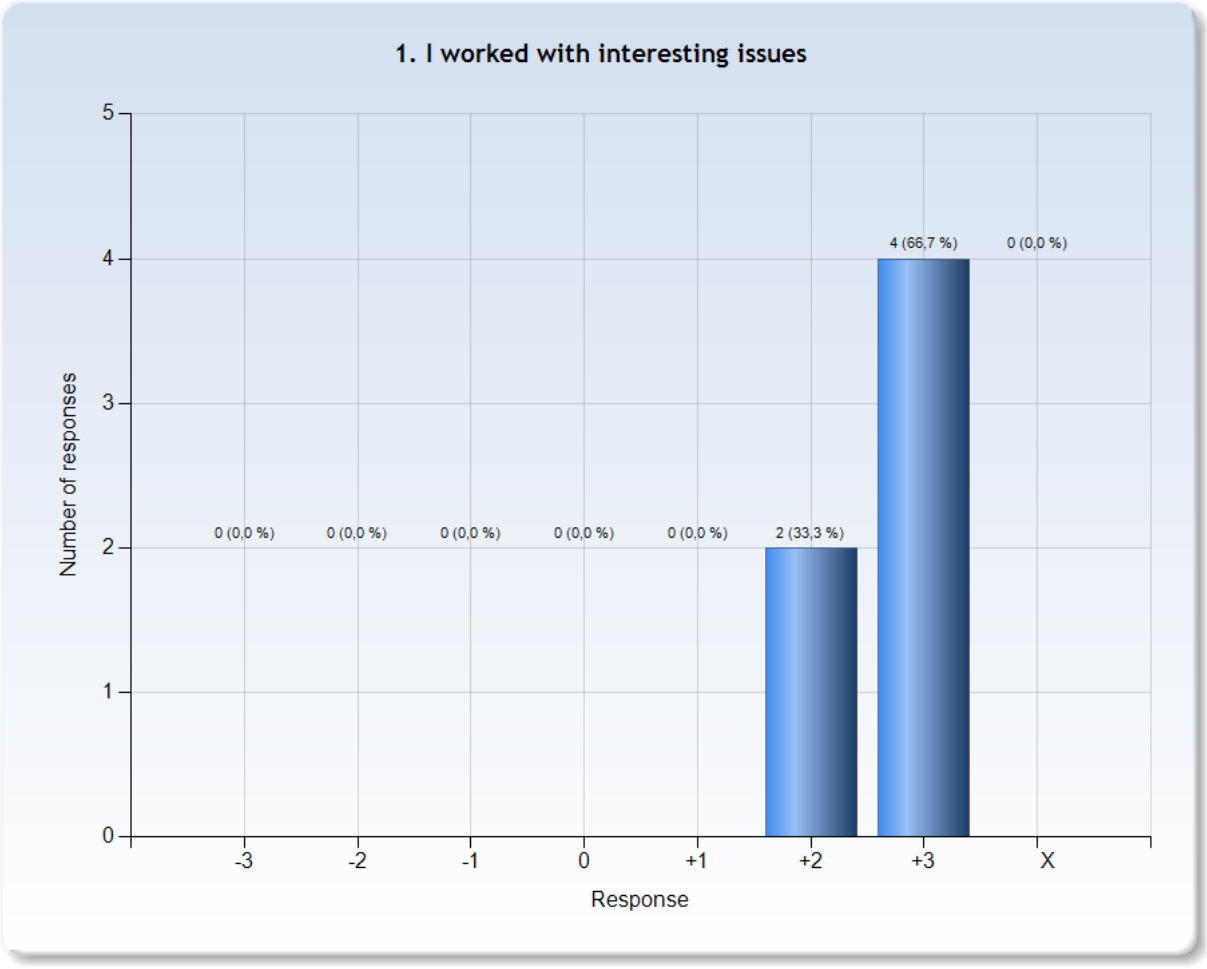
SPECIFIC QUESTIONS

RESPONSE DATA

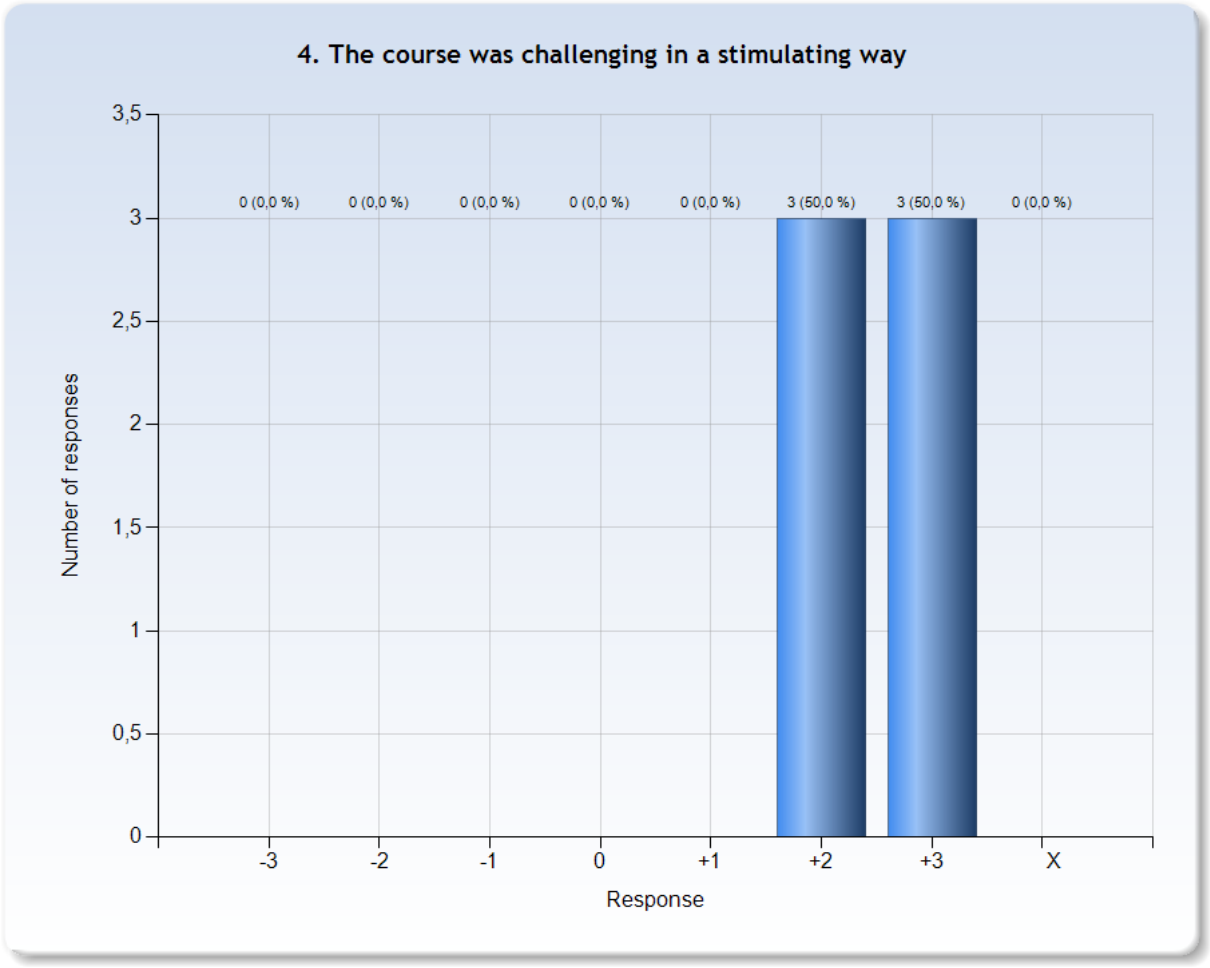
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-3 = No, I strongly disagree with the statement
0 = I am neutral to the statement
+3 = Yes, I strongly agree with the statement

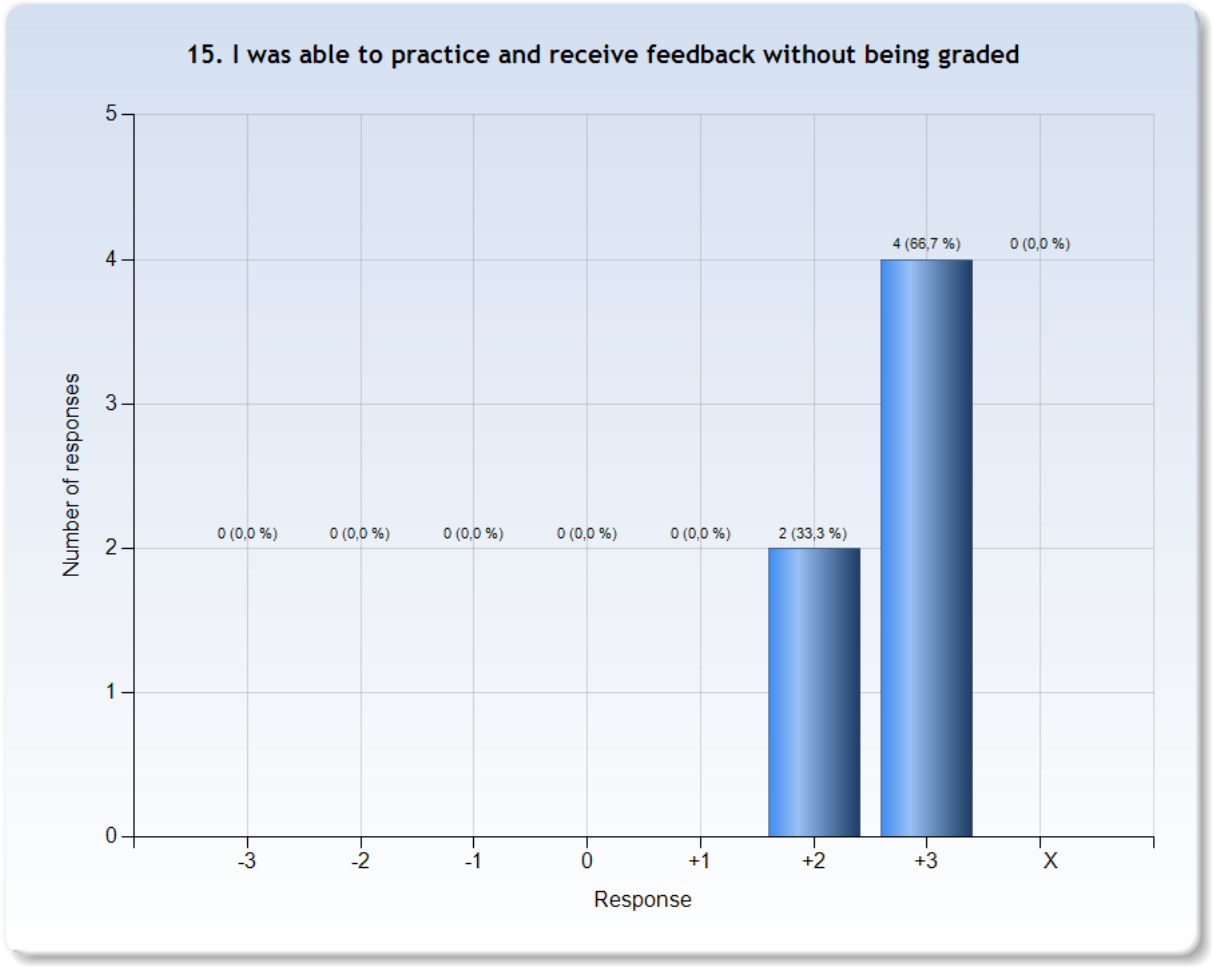
X = I decline to take a position on the statement



Comments

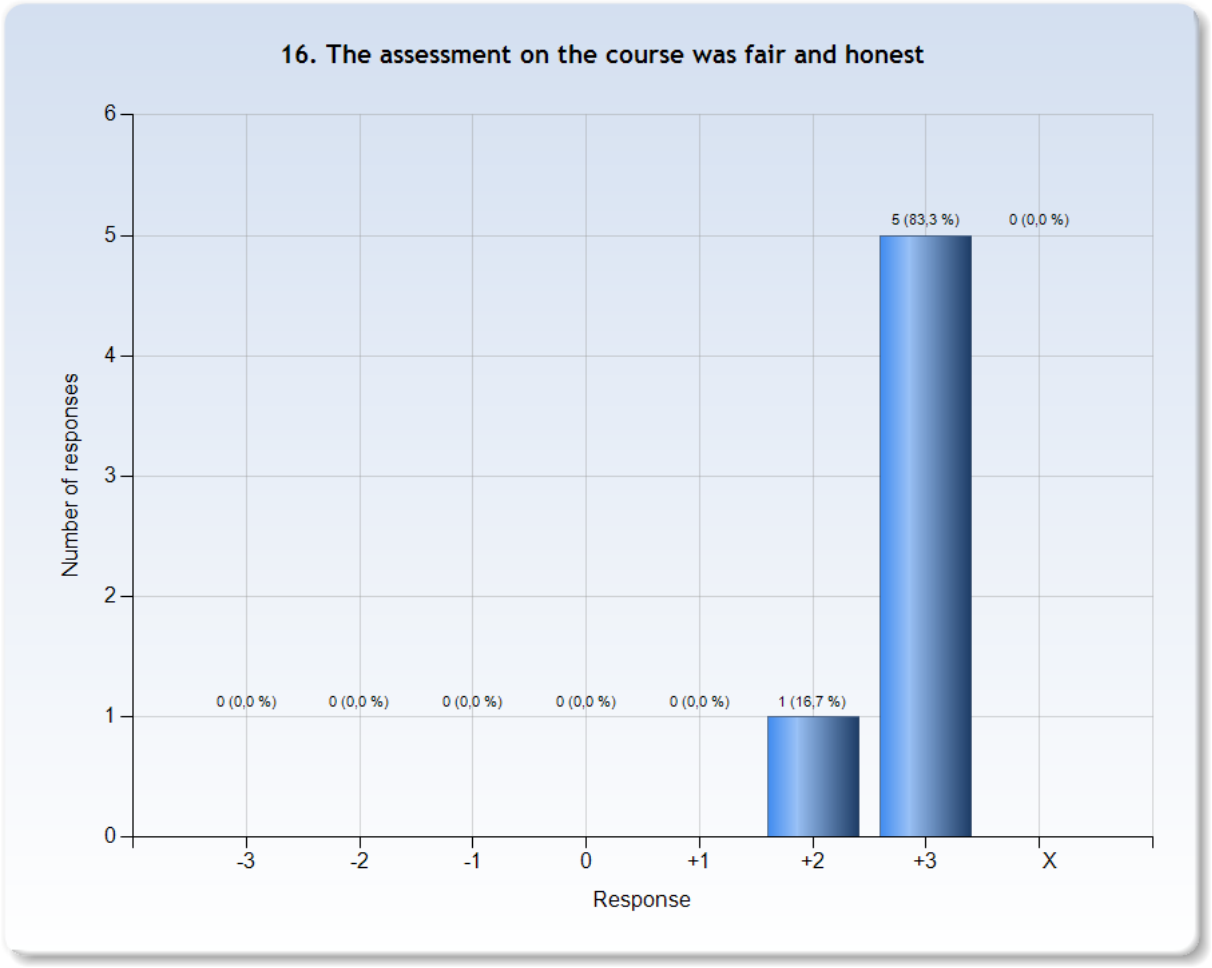

4. The course was challenging in a stimulating way
3,5
3
2,5
2
1,5
1
0,5
0
Number of responses
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
3 (50,0 %)
3 (50,0 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X
Response

Comments

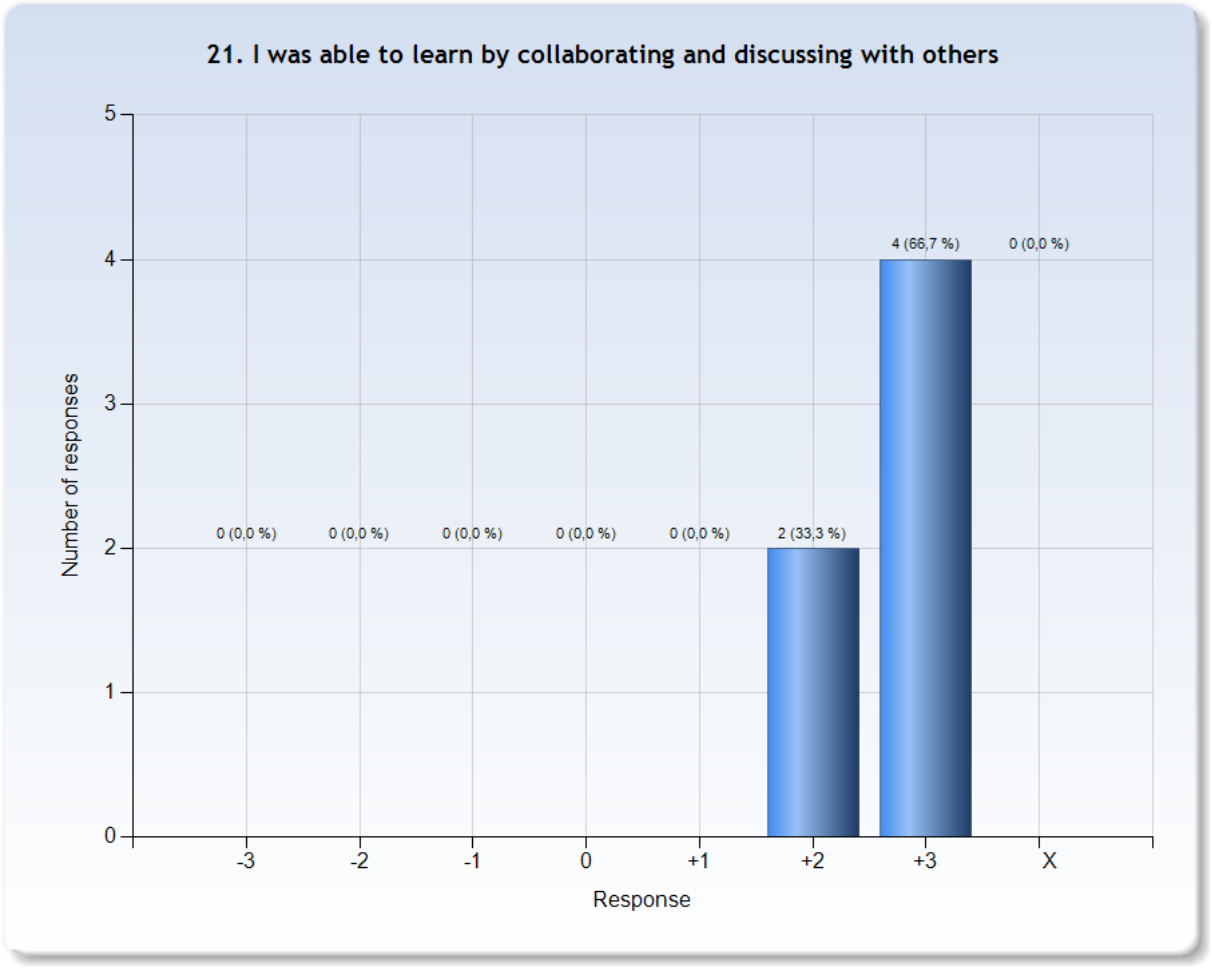


Comments

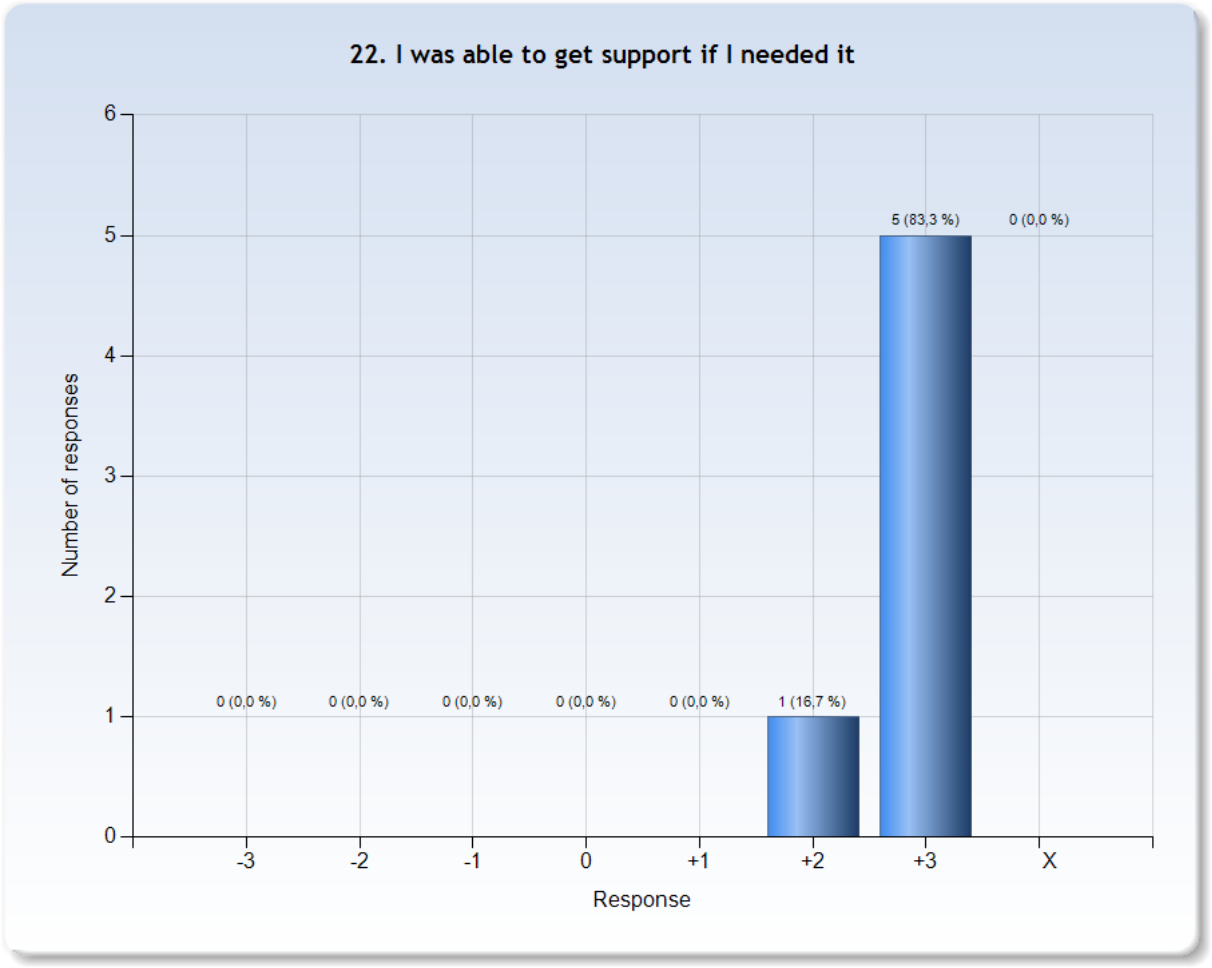
Comments (My response was: +2)
Eftersom samma lärare höll i både föreläsningar, labbar och projekt var sammanhållningen i kursen väldigt bra. Däremot saknades rättning av labbar i tid för att lära sig något till kommande labb.


16. The assessment on the course was fair and honest
Number of responses
Response
0
1
2
3
4
5
6
-3
-2
-1
0
+1
+2
+3
X
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (16,7 %)
5 (83,3 %)
0 (0,0 %)

Comments


21. I was able to learn by collaborating and discussing with others
Number of responses
Response
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
2 (33,3 %)
4 (66,7 %)
0 (0,0 %)
-3
-2
-1
0
+1
+2
+3
X

Comments


22. I was able to get support if I needed it
Number of responses
Response
0
1
2
3
4
5
6
-3
-2
-1
0
+1
+2
+3
X
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
0 (0,0 %)
1 (16,7 %)
5 (83,3 %)
0 (0,0 %)

Comments