



## **SG2804 - 2021-01-19**

---

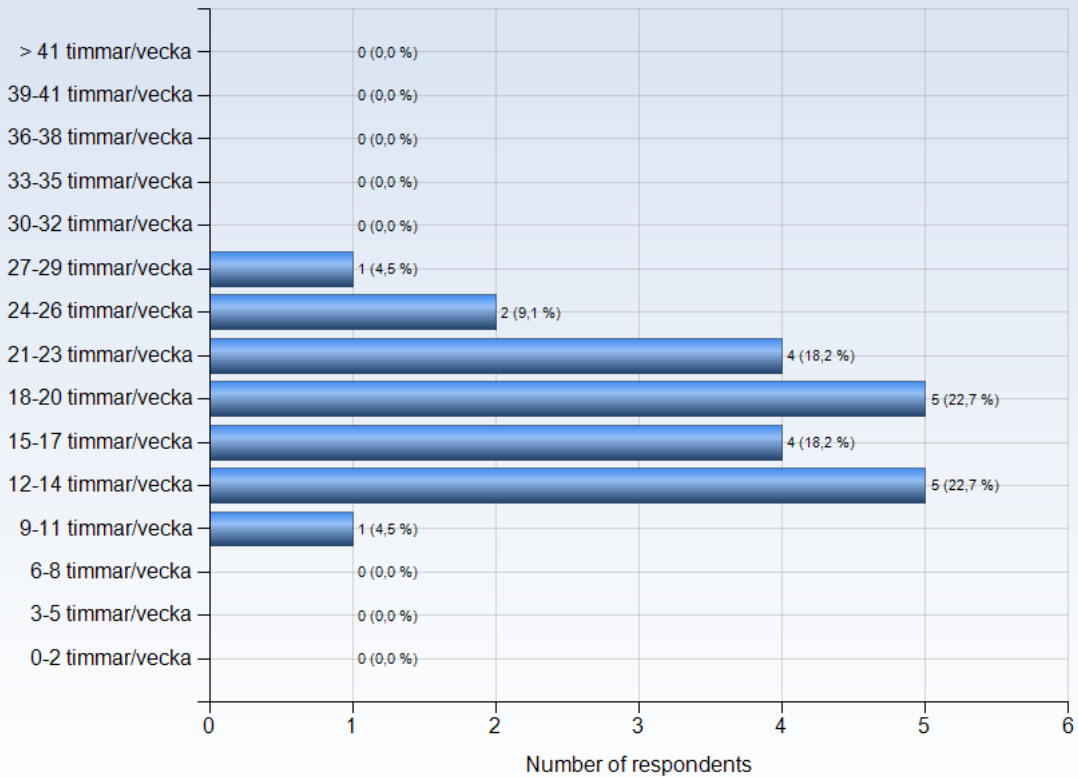
Antal respondenter: 40  
Antal svar: 22  
Svarsfrekvens: 55,00 %

---

---

## ESTIMATED WORKLOAD

On average, how many hours/week did you work with the course (including scheduled hours)?



### Comments

Comments (I worked: 12-14 timmar/vecka)

Projects are quite time demanding.

A lot of time spent to understand Opensim, with more help or explanation it could be easier for us

Comments (I worked: 15-17 timmar/vecka)

The projects took most of this time.

The workload was well balanced in my opinion.

Comments (I worked: 18-20 timmar/vecka)

We have several two-week projects that took up a lot of time. However, they were always interesting.

Very nice subject and good lectures.

Comments (I worked: 21-23 timmar/vecka)

A lot of time is required for the projects, but it is worth it and it's a way to keep up with the lecture arguments using it in the practice.

Comments (I worked: 27-29 timmar/vecka)

Especially first project had a way to high workload. Not possible to focus on important parts and lecture when you are stuck debugging software!



## 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:

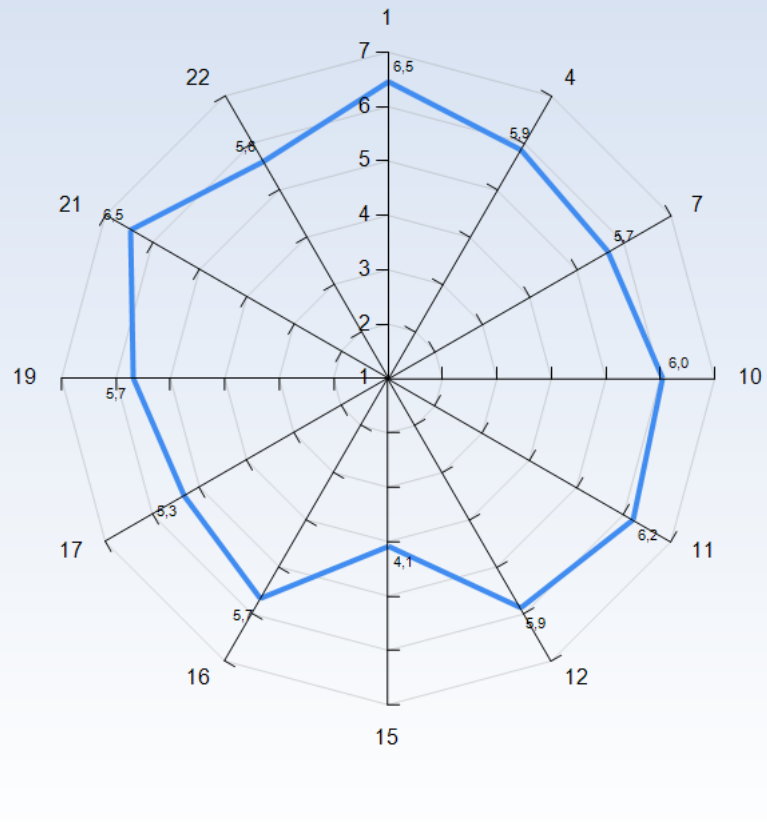
1 = No, I strongly disagree with the statement

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





## **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.

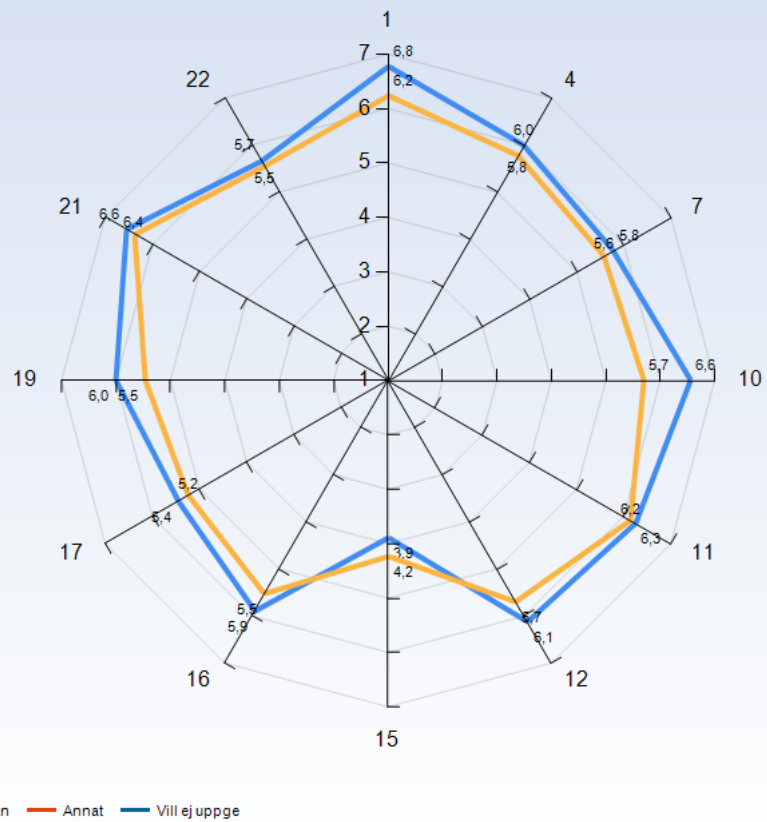
Elmgren, M. & Henriksson, A-S. (2014). *Academic Teaching*, Chapter 3, pp. 57-72. Lund: Studentlitteratur.

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.



### Average response to LEQ statements - per gender

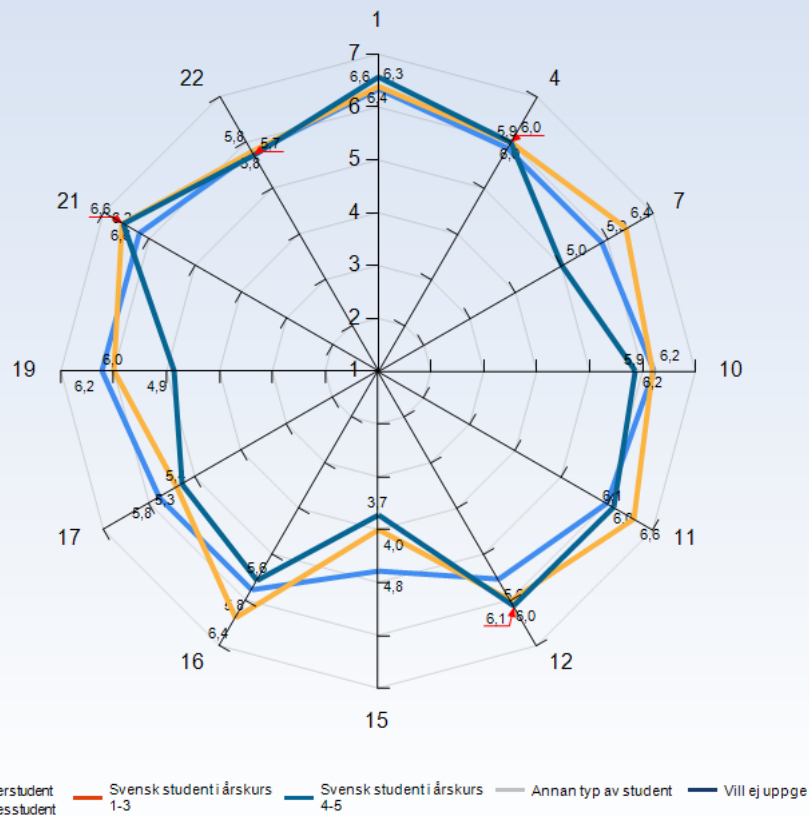


### Comments

Comments (I am: Kvinna)

The students' gender did not play a role at all in the course.

### Average response to LEQ statements - per type of student



#### Comments

Comments (I am: Internationell masterstudent)

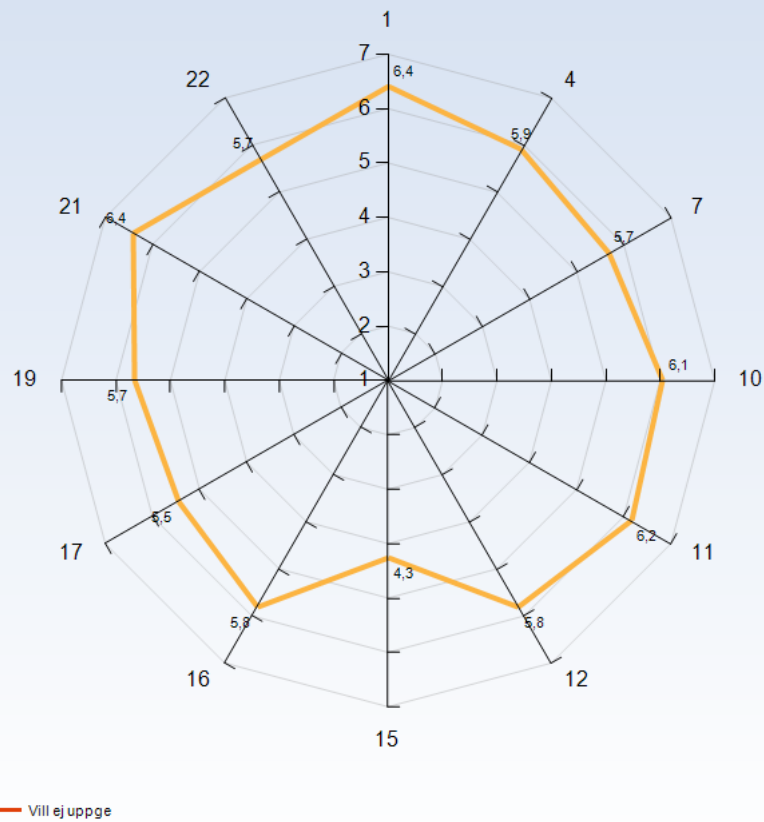
Lanie speaks nice and clear english

the teacher speaks perfect English making it super easy to understand and follow the lecture. Moreover, no project can be submitted in other languages making it fair for everyone.

Comments (I am: Internationell utbytesstudent)

This course's classes were easy to understand (in terms of language).

### Average response to LEQ statements - per disability



#### Comments

Comments (My response was: Ja)

Nothing was mentioned to help people with disabilities, however I'm not sure if this is needed in this course. Would be nice though if teacher mentioned " you are welcome to discuss this with me if you have trouble during the course"

I didn't felt the need for any support. Actually, I have no idea what could possibly help me. Of course, the registration of the lecture helped a lot, but still, the lectures were clear and easy to follow and the powerpoints were well done and with most of the needed information.



## GENERAL QUESTIONS

---

---

### What was the best aspect of the course?

What was the best aspect of the course? (I worked: 9-11 timmar/vecka)

Lanie is so invested and motivating so that it makes it easy to already take away quite a lot of knowledge just by attending the lectures. The projects really challenged us to think about different aspects of the course and had a very practical and real approach.

What was the best aspect of the course? (I worked: 12-14 timmar/vecka)

The course had a great practical aspect that allowed me to apply the concepts that I learned in class. Also, the teacher and classes are very good.

Working on simulations was very interesting and motivating.

The relation student/teacher during the lectures especially in classroom

What was the best aspect of the course? (I worked: 15-17 timmar/vecka)

I liked the projects! The first one was quite intense but it got much better for the other ones. And the help to get started with opensim was very good!

Interesting topics and very good lectures

The combination of seeing the data being recorded in the lab and working with it in OpenSim.

What was the best aspect of the course? (I worked: 18-20 timmar/vecka)

To go to the lab and see how all the simulations can be linked to real movement, also the guest lectures were very interesting.

Interesting topic.

The course was based on several projects using a simulation app (OpenSim). These projects worked really well in understanding the concepts and learning about biomechanics of the human movement, specially compared to exams (projects are better).

The interesting subjects and lectures.

What was the best aspect of the course? (I worked: 21-23 timmar/vecka)

lectures well structured and very engaging, eg. standing up and doing the motions to understand how the muscles works. The projects and the group works during lectures helped to discuss the topic and understand more and make that knowledge yours.

The best part was how real it all was. Now I think about my gait and it's components with every step I take. Also Lanie seems to genuinely enjoy teaching and care about her students which really makes the course more enjoyable.

Interesting application! I've mostly analyzed like go karts and trucks before, and I think the human body is more interesting. Fun subject, well organized course

Interesting course content and good lectures. The projects was a good way of learning.

What was the best aspect of the course? (I worked: 24-26 timmar/vecka)

the participation in the course of guests

What was the best aspect of the course? (I worked: 27-29 timmar/vecka)

The teacher was usually quite motivated to explain things and in good mood during the lectures.

The sport guest lecture was interesting



### What would you suggest to improve?

What would you suggest to improve? (I worked: 9-11 timmar/vecka)

Maybe extend the working time for the projects and give detailed instruction at the beginning about how the reports should look.

What would you suggest to improve? (I worked: 12-14 timmar/vecka)

I would suggest increasing the time we have learning about Opensim and about the parameters of project 3 like tendon slack length. Also, in projects 1 and 2 diminish the number of movements that need to be analyzed. Moreover, the project description could be more clear on what needs to be done and how. In addition, the slides of the classes could be more explanatory, giving not only images/graphs but also explanations about them.

It would be optimal project corrections and feedback could be achieved earlier because they can be useful for the following projects.

A better explanation of different Opensim parts (reduce residual, static optimization...) because we spent a lot of time with that without really understand everything.

What would you suggest to improve? (I worked: 15-17 timmar/vecka)

The biggest improvement needed is the introduction to OpenSim. Things are in the complete wrong order.

Our first introductory lecture to it is too high level, taking up concepts meant for Project two such as the CMC tool etcetera. This is before students have even opened OpenSim themselves, and after the lectures are meant to start with tutorial 1 and 2. This lecture was therefore completely useless, even if it contains vital information. It was also the only real explanation and opportunity to ask questions about what we student find unclear in OpenSim. The solution would be to restructure the course so that future student have to do Tutorial 1 and 2 BEFORE the lecture.

Maybe some sort of seminar or quizzes in combination with the computer labs. They were good as they are now, but feels like they had room to be improved.

What would you suggest to improve? (I worked: 18-20 timmar/vecka)

The assignment instructions could include a little information how the report should be structured. e.g. It wasn't clear that a conclusion was expected and I only learned that after the grading of the assignment.

The page limit was not reasonable, and for the first assignment someone who DOUBLED the limit got double our points, we had to cut down to not exceed the limit and usually at KTH points are deducted if page limit is exceeded. It should be stated CLEARLY that this is not the case for this course.

I think the course is good as it is.

I suggest to let students know beforehand if their camera should be on in the lecture. Specially if the only place in your studeo that is quiet is the bathroom it can be awkward but if you know that the camera should be on you might be able to find another place to stay for the lecture. Also the information about how to change the pathname to the files were insufficient.

What would you suggest to improve? (I worked: 21-23 timmar/vecka)

The project feedback came way too late, after the submission of other projects and so risking redoing the same errors. The project goal was not always super clear, and it affected the results a lot, especially in the first project.

I would like a more clear link between the intended learning outcomes, how the assignments take us towards them and how the final grade is based on our fulfilment of them.

It was not always obvious what we were supposed to do in the assignments and what we were supposed to learn from them. It is reasonable to more independence in a second/third cycle course of course, but it really increased the difficulty of the assignments when we had to figure out for ourselves what to do with software we didn't understand in a subject that was new to us, and I feel that some more guidance would have allowed us to be more focused/goal oriented and I think we would have learned more then.

Not much. It was hard to know how to tune some opensim settings, like the weights in the tasks file. Maybe add some more information about that in the project description

Would be helpful if feedback for a project was given before the next project deadline, to be able to use it to avoid repeating mistakes and reasonings with faults. Scheduling the third tutorial deadline (the one with questions to answer and send it) before the second project deadline, as the content of that tutorial would have helped a lot with some aspects of that project.

What would you suggest to improve? (I worked: 24-26 timmar/vecka)

To increase the number of ECTS credits of this course to 7.5 ECTS because the workload is equivalent to this amount of credits and above all the missing 0.5 ECTS credits force the students to take an additional fourth course during the semester they take the course in order to overtake the 22.5 ECTS to be full time student (if they have already 2 courses of 7.5 ECTS credits + this courses, it misses 0.5 ECTS credits to be full-time student and therefore they have to take a supplementary course of 6 or 7.5 ECTS).

What would you suggest to improve? (I worked: 27-29 timmar/vecka)

The way of how digital lectures were held was not very good. Maybe have some reading assignments for the students to prepare and then discuss during the lectures.

Just starting breakout rooms was always awkward and not very productive. Nobody is really motivated to start a conversation (maybe due to lack of understanding) in breakout rooms.



### 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)

Attend the lectures, get invested in the projects, don't hesitate to get help from the teaching assistants and the lecture book is really helpful in fact.

What advice would you like to give to future participants? (I worked: 12-14 timmar/vecka)

Do not underestimate the projects and don't be shy to ask questions about them.

Be organized in your group workflow. A good functioning group is essential for projects that only last 2 weeks.

To participate during lecture sessions for a better understanding

What advice would you like to give to future participants? (I worked: 15-17 timmar/vecka)

Focus in the beginning so you understand the terminology and all other biological things. It can be quite much in the first week if you're not used to it.

RTFM thoroughly & don't procrastinate.

What advice would you like to give to future participants? (I worked: 18-20 timmar/vecka)

Make sure to have enough time to work on the assignments but it's definitely worth the time you invest.

Do NOT care about the page limit, it will not be good for your grade

Ask for help when needed. The teachers are very helpful.

Ask questions and start early on the projects.

What advice would you like to give to future participants? (I worked: 21-23 timmar/vecka)

when doing the projects first check the book and the lecture slides there is useful information that will help you through the project. If you have questions asked them to the teacher or assistants! They can help you a lot to find the right way to approach the project problems

Start the assignments early because you will want to ask for help eventually and it's better to get there in time for the answer to come back to you before the due date.

The projects are time consuming, start early

A lot of time is required for the projects, start early. When working with projects using Opensim, good file management will help a lot.

What advice would you like to give to future participants? (I worked: 24-26 timmar/vecka)

work regularly

Start working with the projects in time.

What advice would you like to give to future participants? (I worked: 27-29 timmar/vecka)

Only do it if you have a great interest for the human body, medicine and simulation software. You will spend a lot of time to try to understand specific parameters of muscles. Not much time to gain deep knowledge about the basics. Lanie tries to make the lectures as fun as possible but if it is still Corona and digital lectures I would not recommend the course.



**Is there anything else you would like to add?**

---

Is there anything else you would like to add? (I worked: 12-14 timmar/vecka)

no

---

Is there anything else you would like to add? (I worked: 15-17 timmar/vecka)

I come from engineering mechanics and in the beginning was the terminology very hard to get used to, but I really liked that you took everything from the beginning and made it possible to understand!

Thanks for an interesting course!

---

Is there anything else you would like to add? (I worked: 18-20 timmar/vecka)

More help should be provided on the final assignment, and grading has to be faster in order to learn until next assignment

I think the teachers are a bit harsh to student that ask stupid questions and that makes all the students not want to ask questions and I think every question should be celebrated even though they are dumb.

---

Is there anything else you would like to add? (I worked: 21-23 timmar/vecka)

THANK YOU

---

Is there anything else you would like to add? (I worked: 24-26 timmar/vecka)

No

Thank you for a great course!

---

Is there anything else you would like to add? (I worked: 27-29 timmar/vecka)

The discriptions of the projects were poor. Poor layout, not really structured, hard to read, information on what to do all over the place and sometimes mistakes in it, that confuse you and cost you time that you don't have. First project was too much Matlab programming and debugging (40 pages code and no time to make it nice, concise code). It's hard to split up the tasks in your group. Usually there is one who has to work more.

---

---

## **SPECIFIC QUESTIONS**

---

---

## RESPONSE DATA

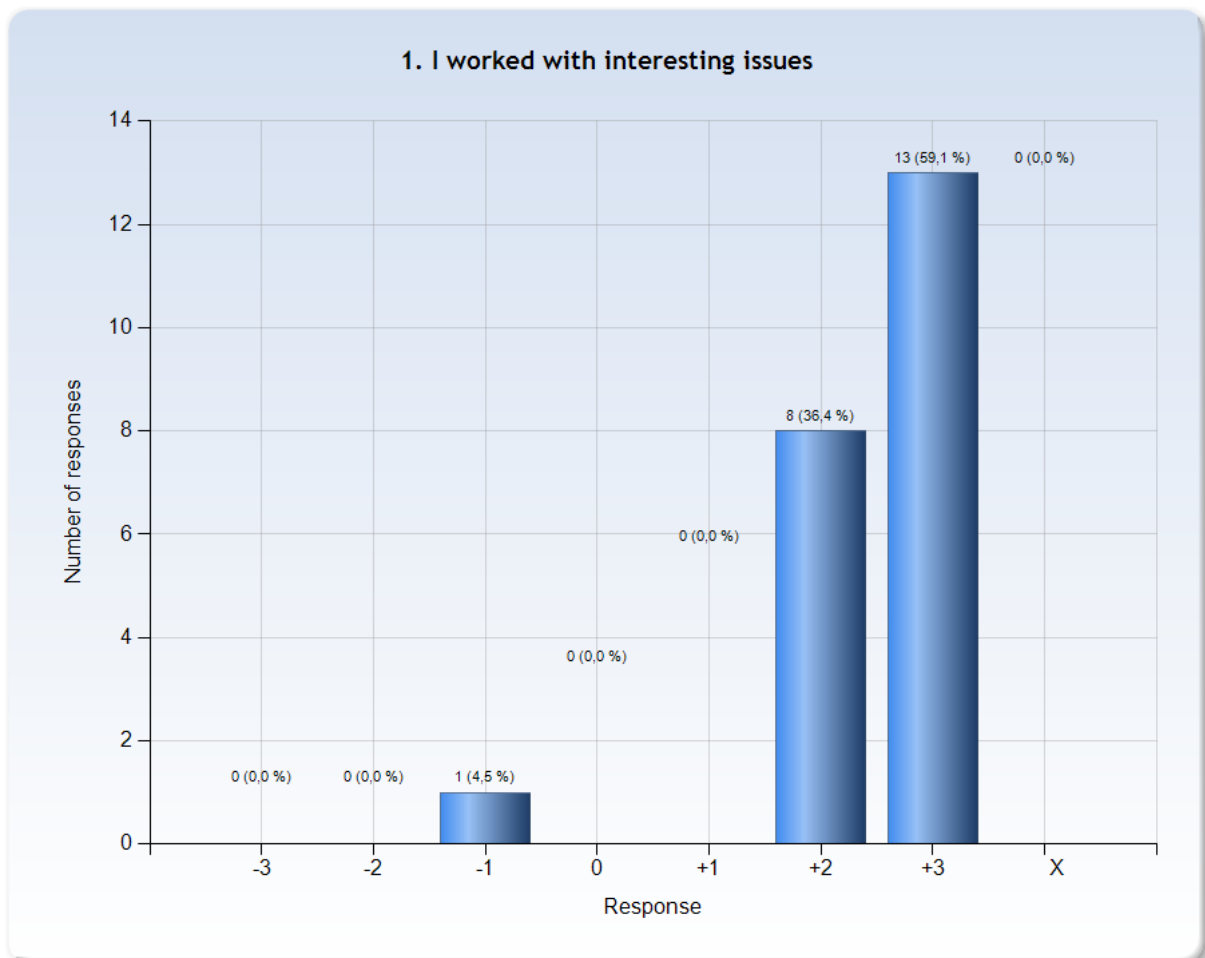
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-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



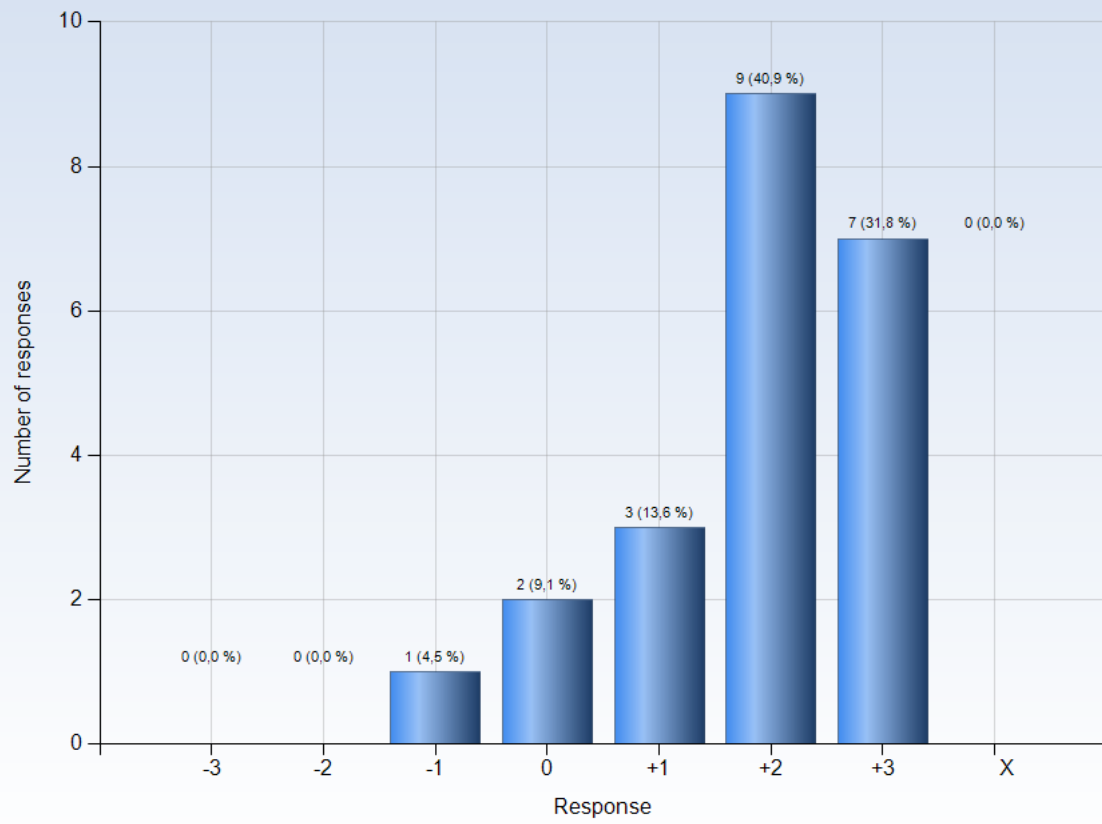
### Comments

Comments (My response was: -1)

Often worked on plots that were hard to understand



#### 4. The course was challenging in a stimulating way

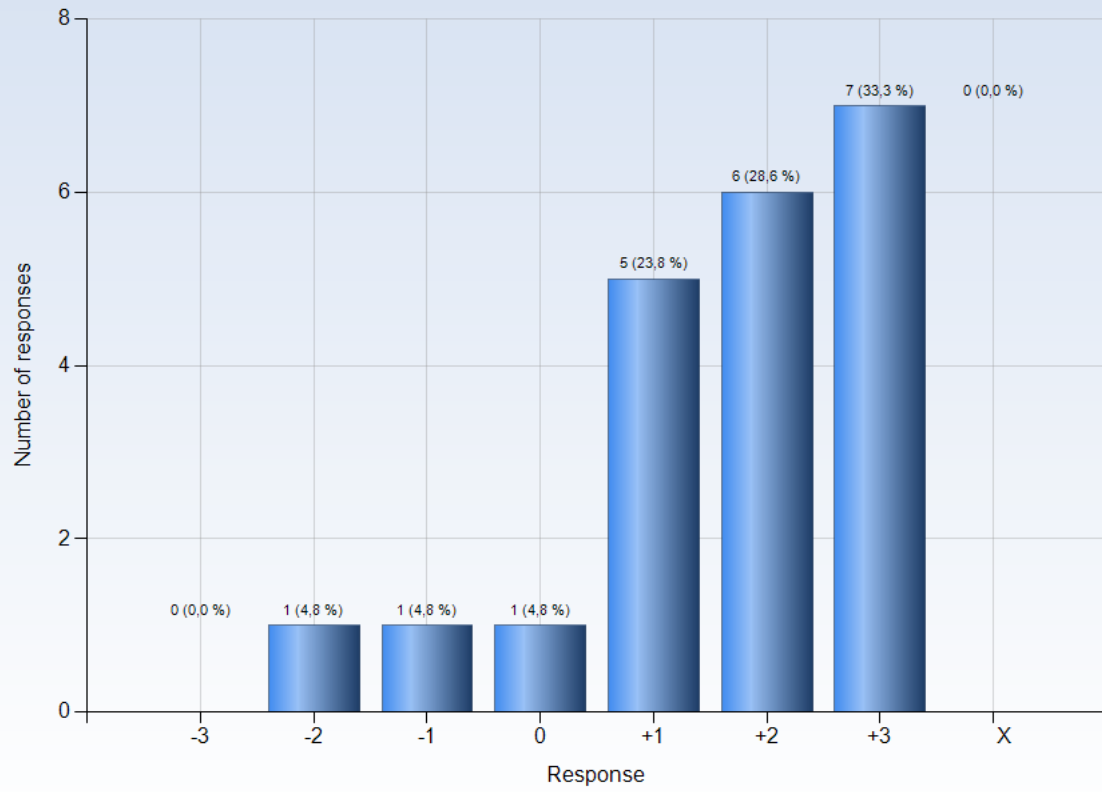


#### Comments

Comments (My response was: 0)

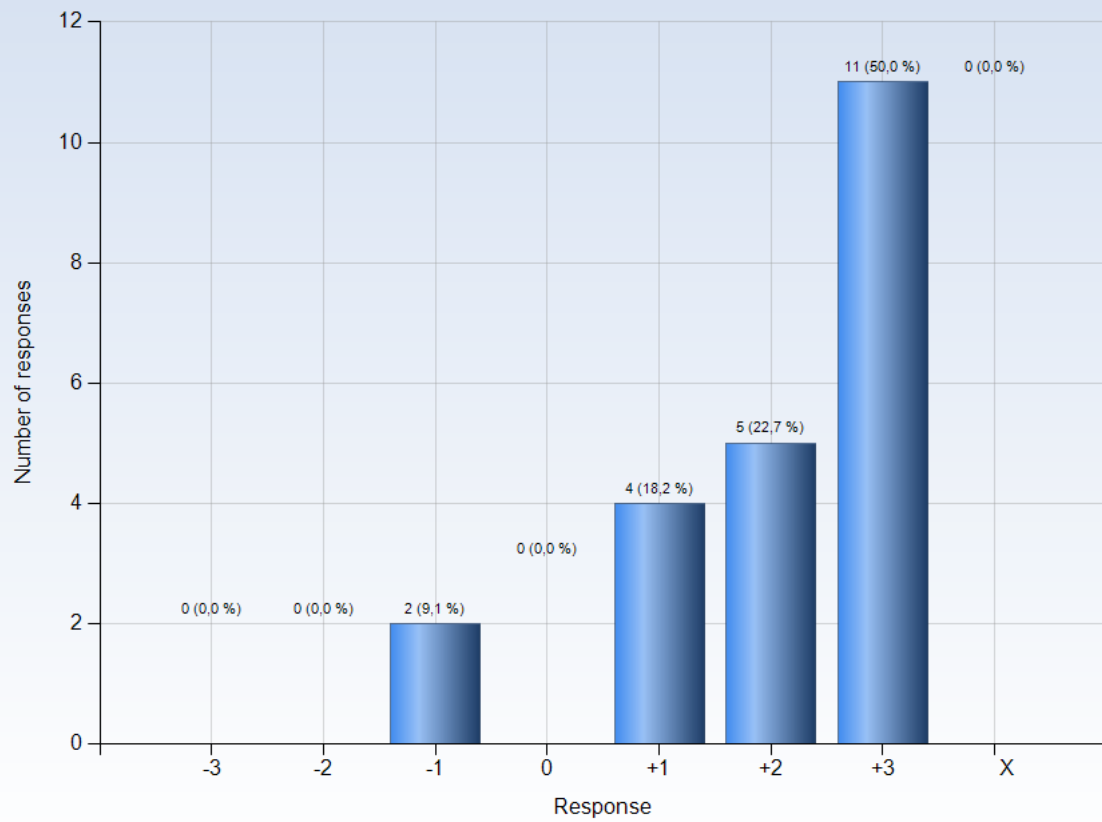
Yes and no, very frustrating cuz too much we did not know how to do

### 7. The intended learning outcomes helped me to understand what I was expected to achieve



Comments

10. I was able to learn from concrete examples that I could to relate to

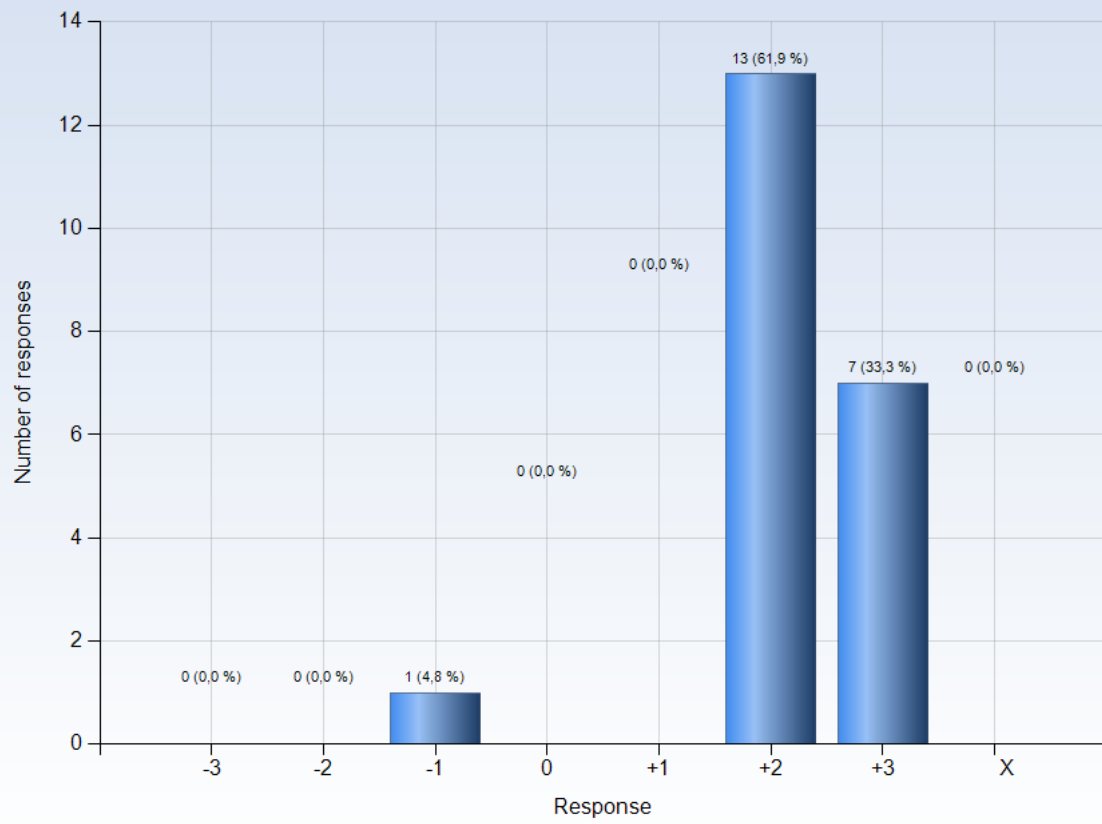


Comments

Comments (My response was: -1)

Too much medical for my taste. Couldn't relate.

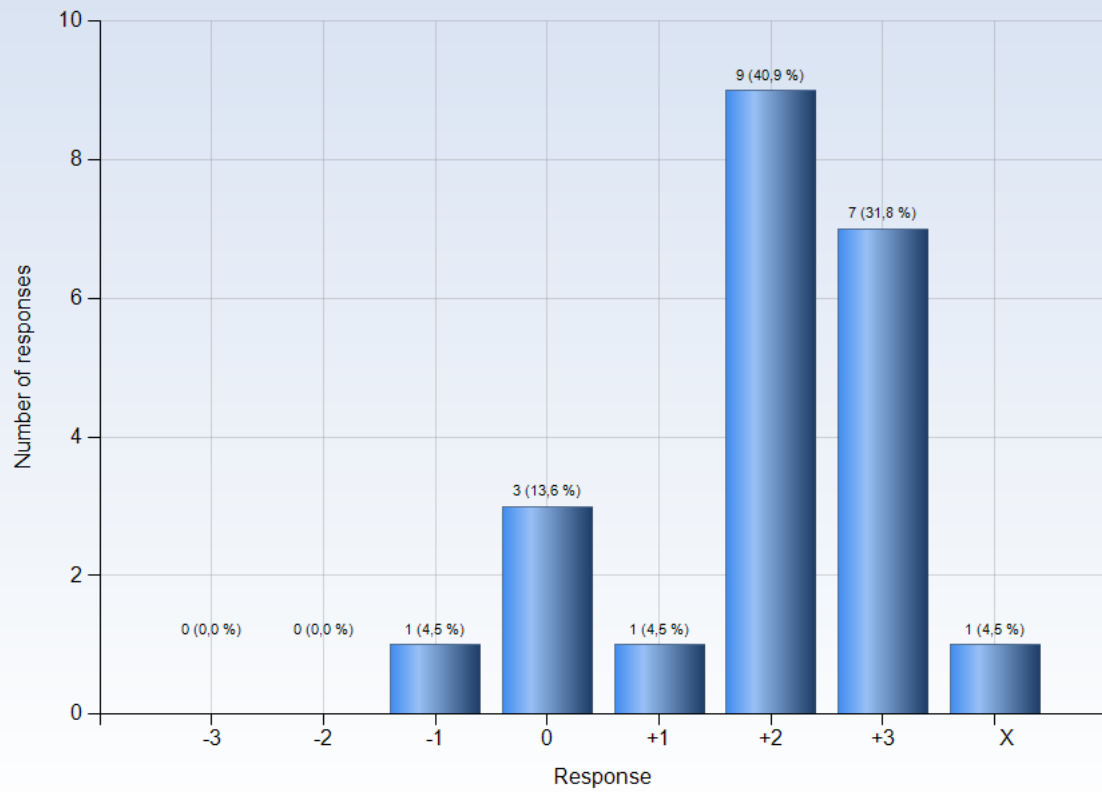
### 11. Understanding of key concepts had high priority



#### Comments

Comments (My response was: -1)  
Mainly understanding software was key

## 12. The course activities helped me to achieve the intended learning outcomes efficiently

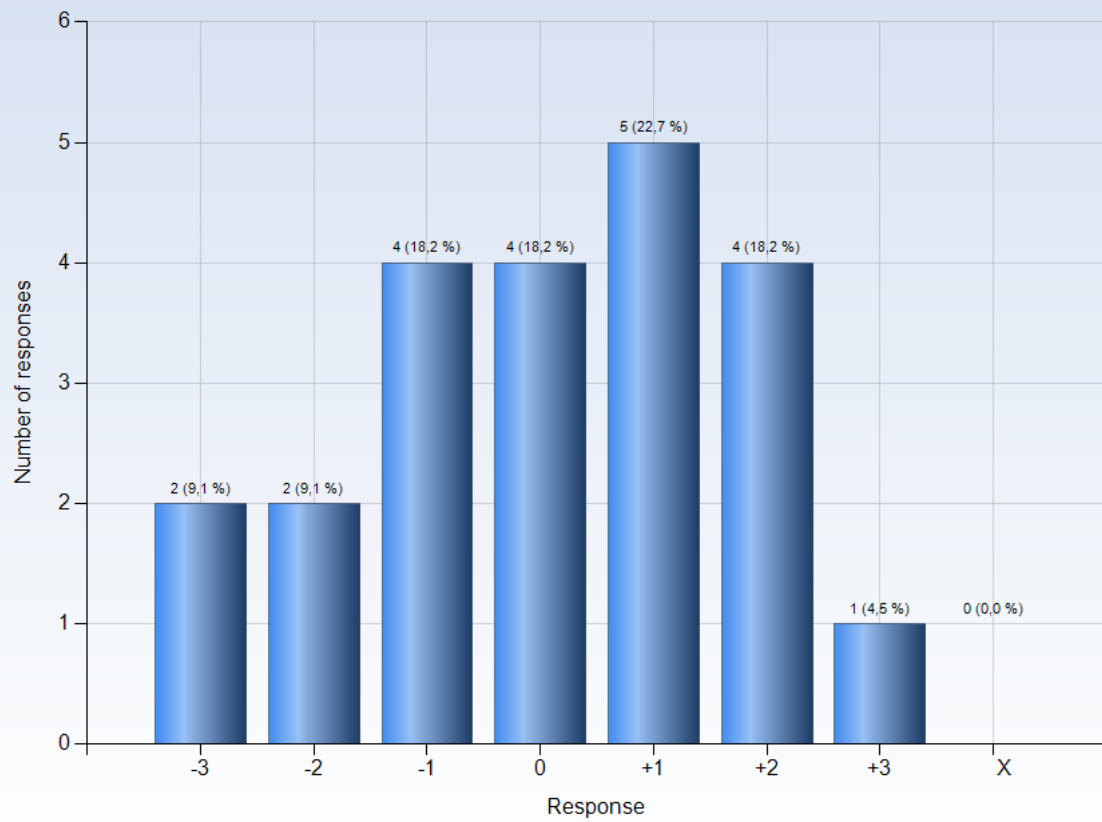


### Comments

Comments (My response was: -1)

The projects were quite hard and then there was no time to read up on things to really understand it.

### 15. I was able to practice and receive feedback without being graded



#### Comments

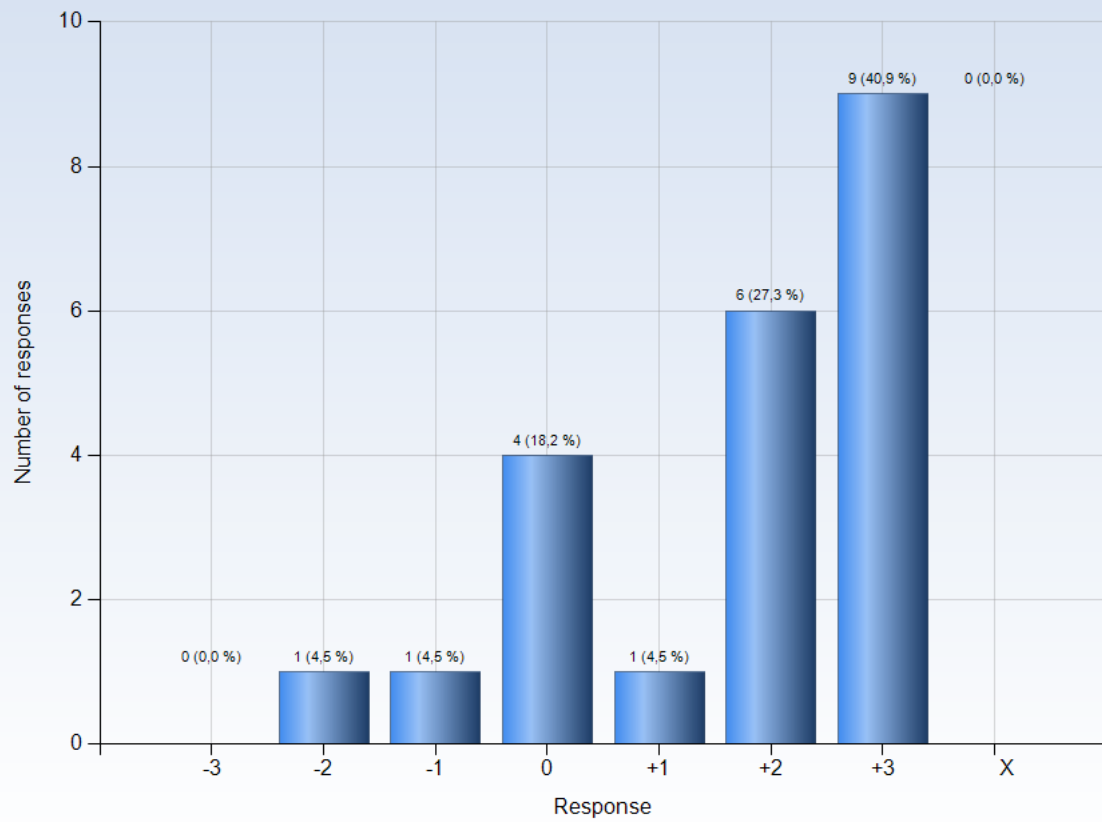
Comments (My response was: -3)

NOT AT ALL

Comments (My response was: +2)

If you ask questions you get good answers

### 16. The assessment on the course was fair and honest



#### Comments

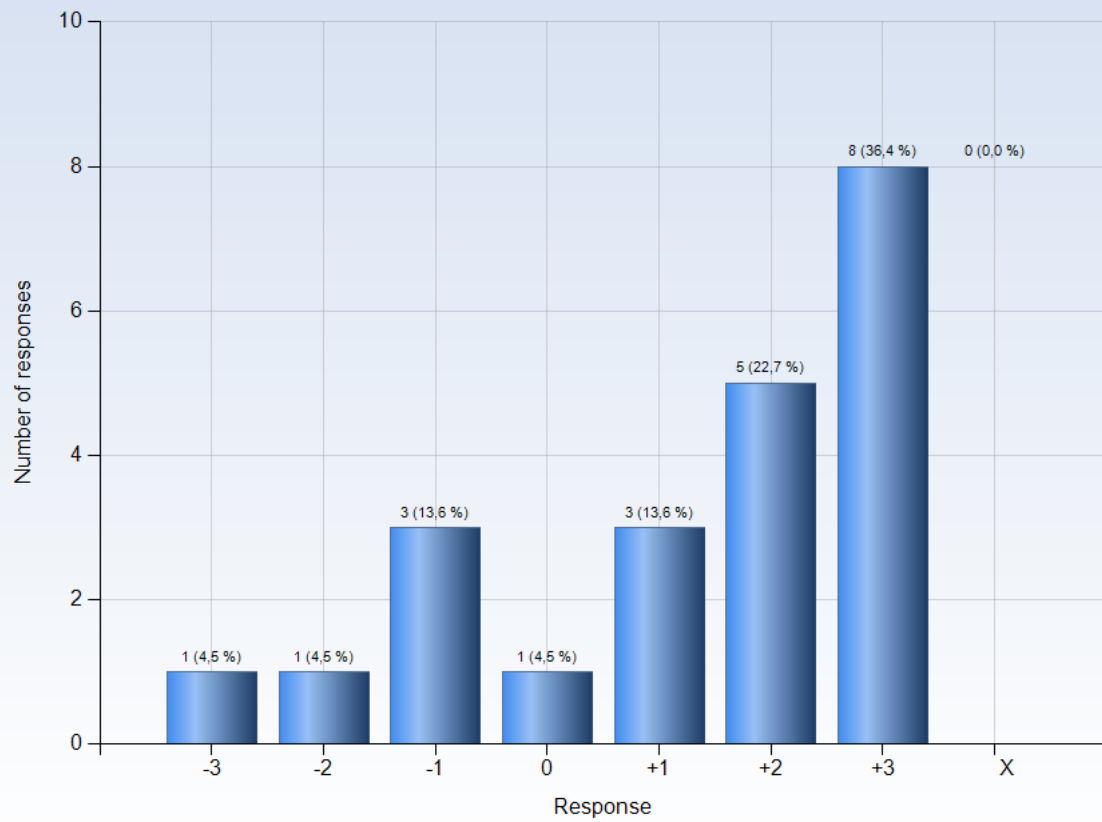
Comments (My response was: -1)

Hard to make everyone contribute equally on the projects

Comments (My response was: 0)

Feedback was good but too late. Same mistake were done again.

### 17. My background knowledge was sufficient to follow the course



#### Comments

Comments (My response was: -3)

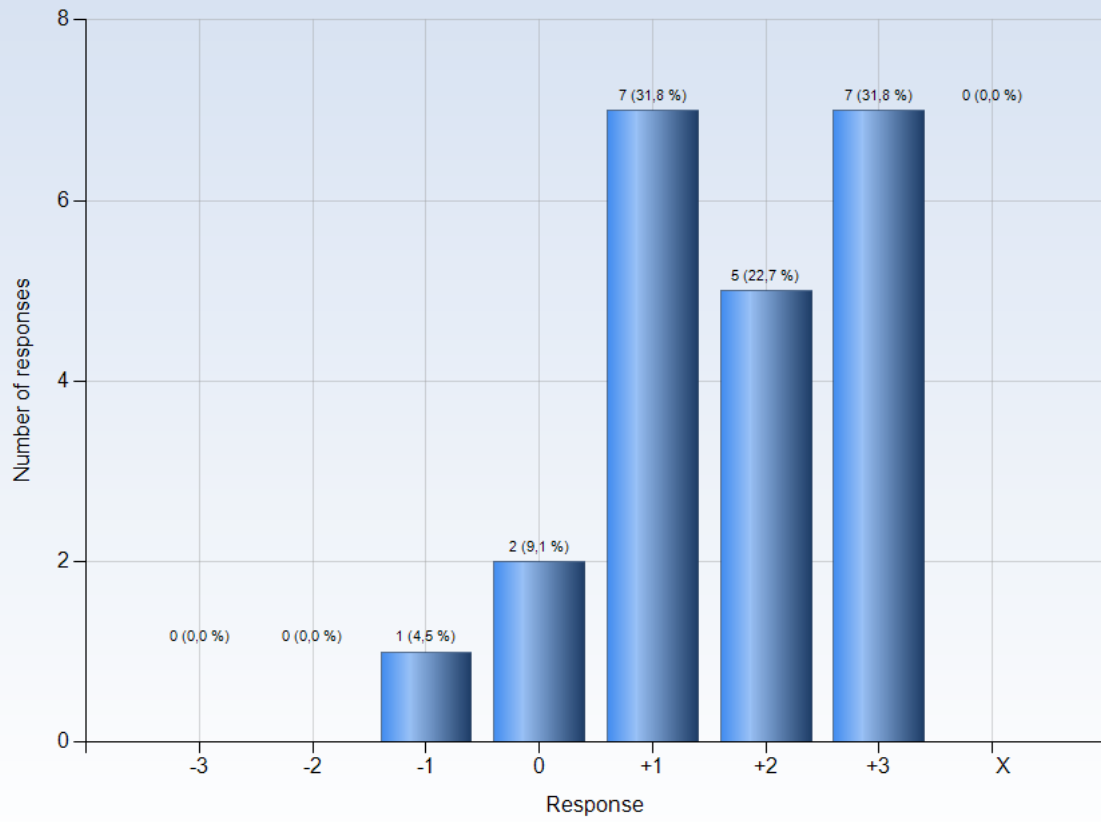
Way too much was expected, things outside course requirements

Comments (My response was: -1)

After one week you are expected to understand the human body already



### 19. The course activities enabled me to learn in different ways

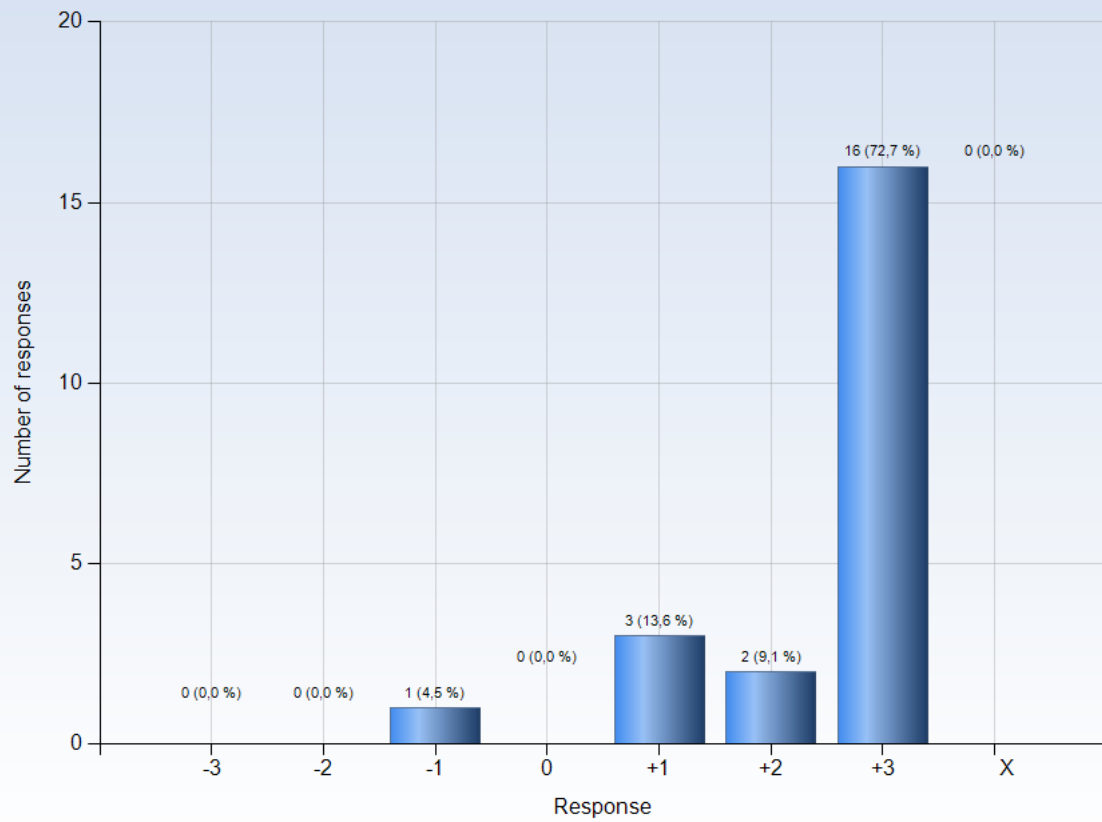


#### Comments

Comments (My response was: +3)

I liked the mix between different smaller projects with different people.

### 21. I was able to learn by collaborating and discussing with others

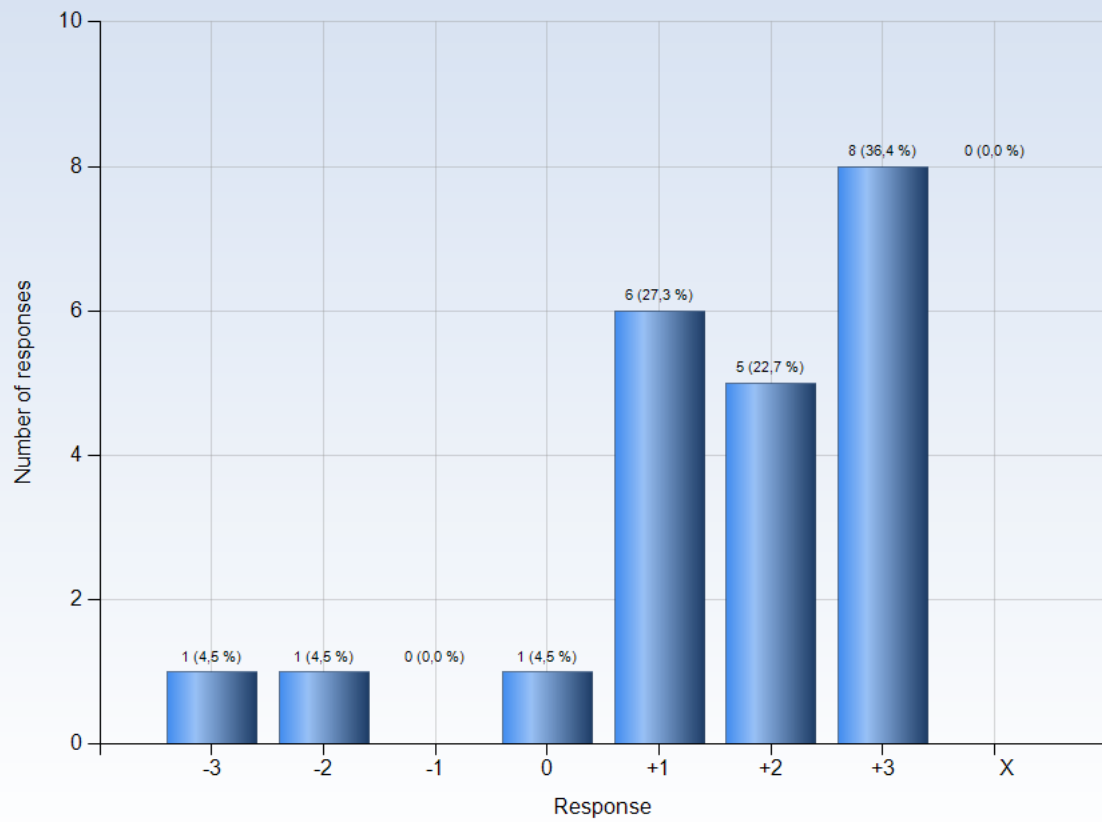


#### Comments

Comments (My response was: -1)

The zoom breakout rooms are always awkward and not a good method to learn and discuss. Better to have some time in advance to prepare and then meet in groups to discuss

## 22. I was able to get support if I needed it



### Comments

Comments (My response was: +3)  
Good support when you ask for it