

Report - EL2220 - 2024-08-08

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):

Petter Ögren, petter@kth.se

DESCRIPTION OF THE COURSE EVALUATION PROCESS

Describe the course evaluation process. Describe how all students have been given the possibility to give their opinions on the course. Describe how aspects regarding gender, and disabled students are investigated.

The standard online course evaluation form was used (from the same webpage as this course analysis). The form enables separation based on gender etc.

DESCRIPTION OF MEETINGS WITH STUDENTS

Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)

The course includes four seminars each year, where students discuss a topic in the presence of a teacher/mentor. At the end of these meetings the students give general feedback on the courses they are taking, including this one.

COURSE DESIGN

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

This course is a so-called Program-integrating course (programsammanhällande kurs) on a format that is very common at the KTH EECS school for both Bachelor and Master Programs.

The purpose is to enable inclusion of material and learning objectives of a more non-technical nature, such as ethics, sustainability, career planning, and gender issues. It also provides a setting to receive program level feedback from the students, and for the students to get to know faculty in a more relaxed setting outside the technical courses.

The learning activities are centered around 4 seminars each year. Before the seminar the students are given a topic, reading material, and a set of questions to reflect upon. Then the students write a 1-2 page document reflecting upon the questions. Finally they meet in groups of about 15 and discuss the questions. As mentioned above, at the end of the seminars, the students give general feedback on the courses they are taking.

The examination is in the form of submission of the reflection documents, and mandatory attendance of the seminars.

There were no changes since the last course offering.

THE STUDENTS' 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?

The course is 3 credits, running over 2 years. This gives 1.5 credits (40h) per year, and 10h per seminar, divided into 8h preparation and 2h attendance.

As the course is so spread out over the year, it becomes a bit difficult to interpret the student replies, that are all in the range of 0-8h per week (as workload is zero after the seminars, and non-zero right before them).

However, one student wrote "A text takes maybe 6-8 hours to write in total which is reasonable", which is in line with the intended workload described above.

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?

Almost all students complete the course (as it is mandatory for the program, and not really "difficult"). Some miss seminars and realize it much later. Then they have to read a number of other students' reflections, and write a reflection on those, to account for missing attendance.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

A set of responses from the course evaluation are given below.

Best aspects:

It was a nice course to have throughout the two years, like a nice refresher after all the coding and maths. A nice way to meet the rest of the students as well, both younger and older.

It is nice to do a non-technical course and discuss subjects that are closer to ethics and social injustices.

Interaction between different years of the master

I appreciated that one of the topics was on sexual harassment.

Nice to meet with other students from the master program and discuss topics that are important for our line of studies/work

Things to improve:

I think it would be best to focus on topics that are mostly of philosophical content and topics that relate to systems thinking in a broader context (such as the fish stock assignment last year). Some topics, such as the climate change and sexual harassment seminars fail to provoke interesting discussions whereas they could with some changes and there are plenty of alternative interesting topics too.

Advice to future participants:

Even if the thought of some assignments/topics may seem dull or demotivating, I would recommend participating actively in the seminars, it is absolutely possible to make the discussions interesting if you lean in.

Take time to think about the questions and see the value in everything. Thinking about deep questions and writing about them is a good skill to practice.

Something to add:

The least enjoyable topics were the ones for which I lacked motivation and seemingly others did too. For example, few people had any experience or novel/interesting perspectives on sexual harassment during the seminar and mostly felt like it was a mandatory subject rather than anyone actually learning something.

Great course and a much needed break from everything else.

Feedback on Seminar 1 (SCR and Learning):

It was the least interesting topic. I did not feel like this seminar topic was needed

Feedback on Seminar 2 (Ethics):

Very good! I think it's important for us engineers to have a better understanding of ethics and to make decisions on what we choose to participate in and develop.

Feedback on Seminar 3 (Climate Change):

I think this is a very important topic today and was happy it was one of the seminar. The other students gave me a lot of things to reflect on and there are many cool inventions being created in this field.

Feedback on Seminar 4 (Sexual Harassment):

It was really good! I felt that it helped me put words into things that had been difficult to describe before. For example, I would know that something didn't feel good or would make me uncomfortable, but through the seminar it was obvious that what I felt was validated, why it was validated, how we can prevent it etc. It was also interesting to see it from the guys' perspectives because it was well-meaning intentions behind the acts that in theory would make someone uncomfortable. Most valuable of all was that we all got new perspectives on the topic and we figured out some guidelines to prevent making both men and women uncomfortable in work environments.

This is an important topic to discuss, but I as a woman found this topic very depressing to talk about.

SUMMARY OF STUDENTS' OPINIONS

Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

Overall the students are reasonably happy with the course. It is very different from most other courses at KTH, which is perceived as both good and bad.

OVERALL IMPRESSION

Summarize the teachers' overall impressions of the course offering in relation to students' results and their evaluation of the course, as well as in relation to the changes implemented since last course offering.

Overall the course works well. There were no changes from last year.

ANALYSIS

Is it possible to identify stronger and weaker areas in the learning environment based on the information you have gathered during the evaluation and analysis process? What can the reason for these be? Are there significant differences in experience between:

- students identifying as female and male?
 - international and national students?
 - students with or without disabilities?
-

The thing that was sensitive from a minorities point of view was the sexual harassment seminar. But given the feedback it seems it went well and was appreciated.

PRIORITIZED COURSE DEVELOPMENT

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

Seminar 1, on SCR and Learning is perceived as being least interesting. We will try to revise it for next year. Perhaps by making the career reflections more concrete, in terms of what learning goals of the program will be most important for the future careers of the students.

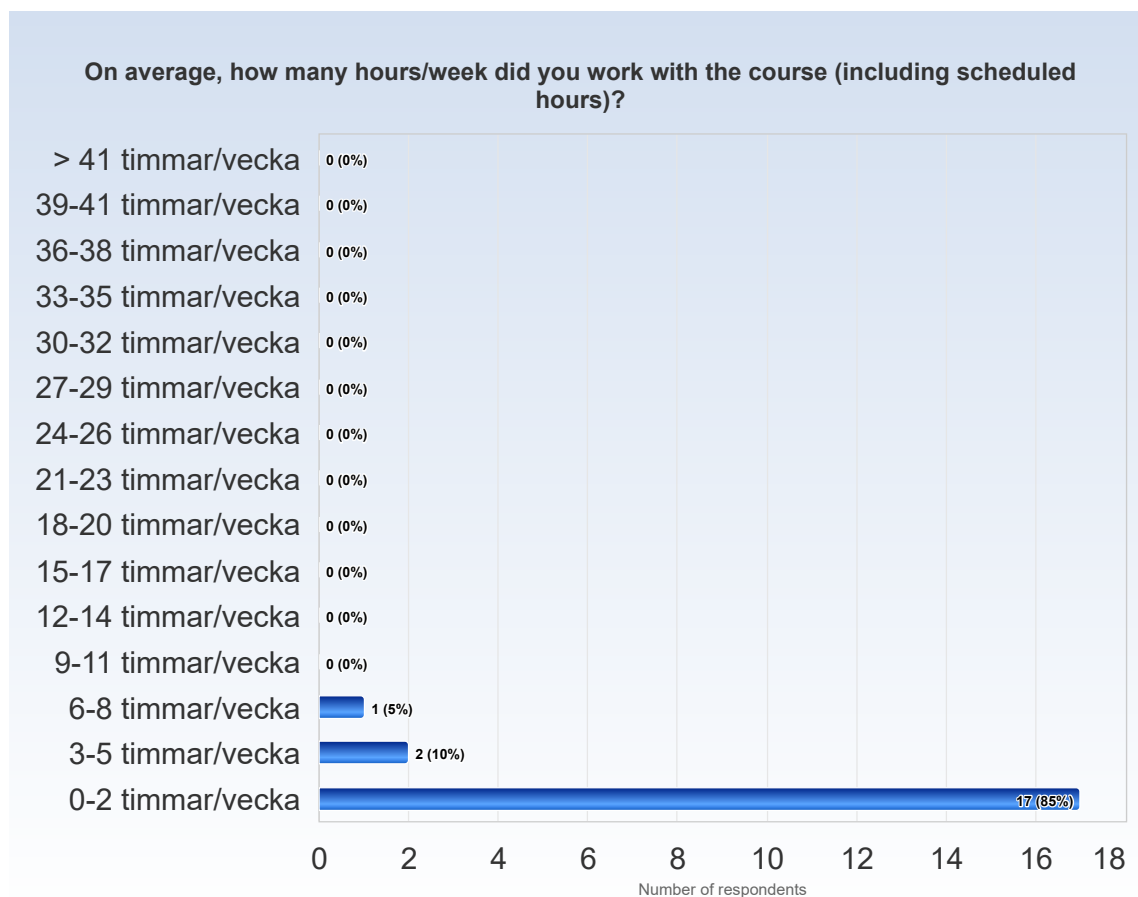
EL2220 - 2024-06-13

Antal responder: 103

Antal svar: 20

Svarsfrekvens: 19,42 %

ESTIMATED WORKLOAD



Comments

Comments (I worked: 0-2 timmar/vecka)

The course is very manageable, and does not take much time in total over the semesters

A text takes maybe 6-8 hours to write in total which is reasonable

In general 0-2 h, but when we had to do the reading, writing and attend the seminars it was a bit more. Then it was maybe around 10-15 hours for that week.

only work when assignments are released

Well i think what the course is trying to teach us is still being taught even with this low working hours. More or bigger tasks would only make me less involved and more inclined to instead use chatgpt.

Comments (I worked: 3-5 timmar/vecka)

This only applies to the week of submission+seminar. All other weeks I spent 0h.

The reading material was given and we were given specific questions to answer so outside the 2 hours for the seminars it was about 2-3 hour work per assignment.

Comments (I worked: 6-8 timmar/vecka)

I did not work this much every week, only the weeks when the assignment was due.

LEARNING EXPERIENCE

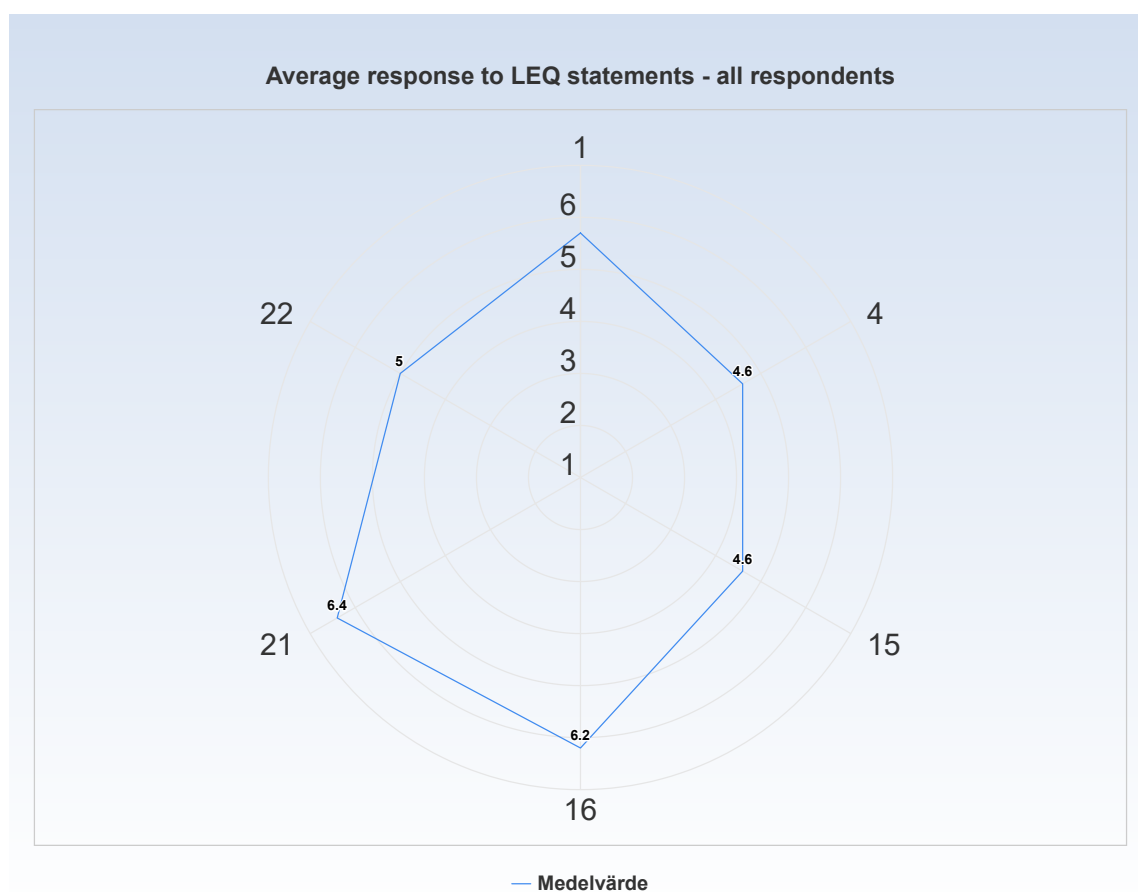
The polar diagrams below show the average response to the LEQ statements for different groups of respondents (only valid responses are included). The scale that is used in the diagrams is defined by:

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.



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.

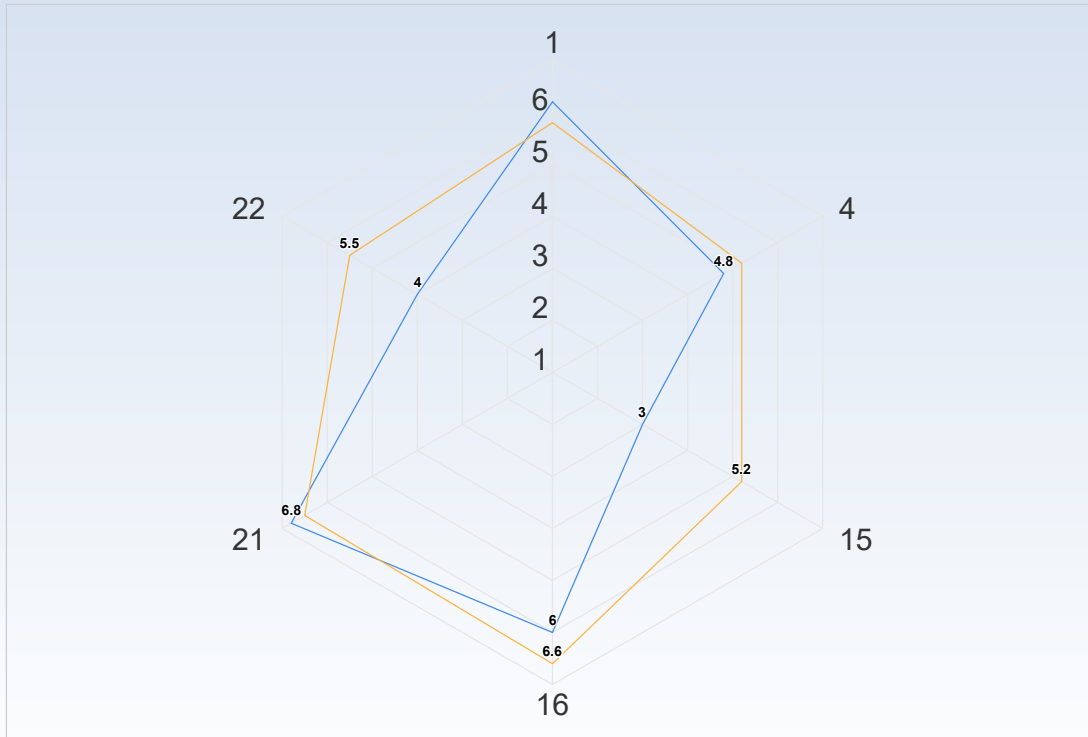
Biggs J. & Tang, C. (2011). *Teaching for Quality Learning at University*, Chapter 6, pp. 95-110. Maidenhead: McGraw Hill.

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.

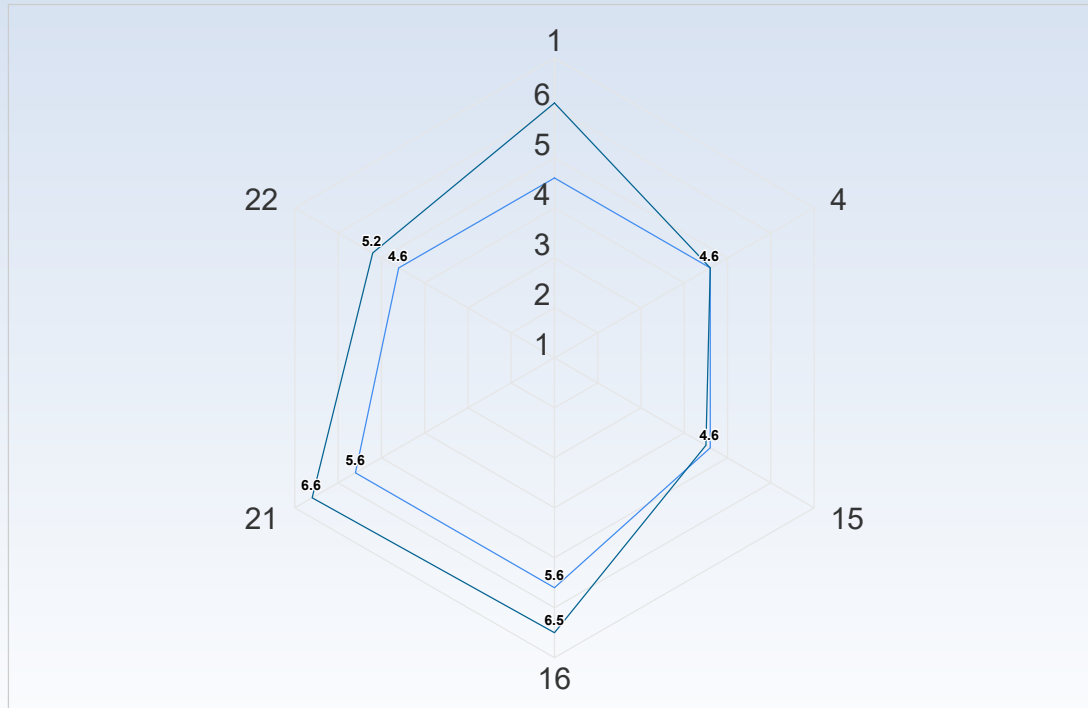
Ramsden, P. (2003). *Learning to Teach in Higher Education*, Chapter 6, pp. 84-105. New York: RoutledgeFalmer.

Average response to LEQ statements - per gender



— Kvinna — Man — Annat — Vill ej uppge

Average response to LEQ statements - per type of student



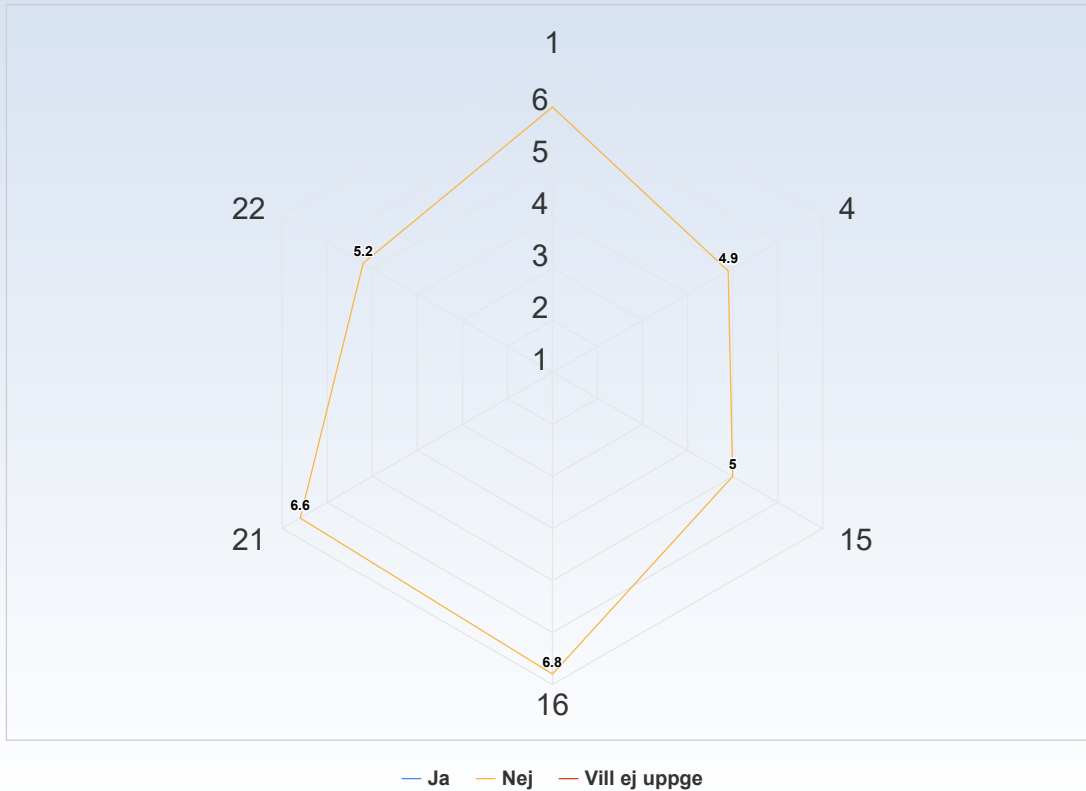
— Internationell masterstudent
 — Internationell utbytesstudent
 — Svensk student i årskurs 1-3
— Svensk student i årskurs 4-5
 — Annan typ av student
 — Vill ej uppge

Comments

Comments (I am: Svensk student i årskurs 4-5)

It was a nice course to have throughout the two years, like a nice refresher after all the coding and maths. A nice way to meet the rest of the students aswell, both younger and older.

Average response to LEQ statements - per disability



Comments

Comments (My response was: Ja)

Hearing aids

GENERAL QUESTIONS

What was the best aspect of the course?

What was the best aspect of the course? (I worked: 0-2 timmar/vecka)

Interaction between different years of the master

It is nice to do a non-technical course and discuss subjects that are closer to ethics and social injustices.

The seminars!

That it is encouraged for students to speak about their teachers and areas of improvements in the courses. discussing with others

I actually thought it was really fun to discuss mostly philosophical topics in a casual setting with fellow students. The most interesting interactions were definitely when the professor weighed in on a topic so that everyone was engaged. The most thought-provoking seminars regarded philosophical/purpose-related topics such as motivation for program/studies and ethics. Typically, the essays sometimes felt like a I appreciated that one of the topics were on sexual harrasment.

the course gave an opportunity to hear and discuss different perspectives on multiple topics.

I like that the first topic in P1 gives an opportunity for first year students to ask the second year students for advice.

Nice to meet with other students from the master program and discuss topics that are important for our line of studies/work

The walking seminars were nice, You have some very talented and nice people that work at MSc Systems, Control and Robotics that are very interesting to talk to.

What was the best aspect of the course? (I worked: 3-5 timmar/vecka)

That you could get a chance to meet with the rest of the students from your year aswell as the year below and have a nice discussion.

What would you suggest to improve?

What would you suggest to improve? (I worked: 0-2 timmar/vecka)

Not to have the course over 2 years for 3 HP, insane....

When reading my peer's essays it was clear to me that not all knew how to write. The structure etc was bad bad bad. It's upsetting to think that these are my future colleges lol, so I think the world would benefit from giving a bit stricter penalties. Maybe having someone that knows grammar correct everything the first submission and then for the second submission the professor can read through the text.

It could also be the case that I was unlucky to only have ended up in groups with people that can't write or have dyslexia or similarly.

Nothing

I think it would be best to focus on topics that are mostly of philosophical content and topics that relate to systems thinking in a broader context (such as the fish stock assignment last year). Some topics, such as the climate change and sexual harassment seminars fail to provoke interesting discussions whereas they could with some changes and there are plenty of alternative interesting topics too.

The assignment of about the tragedy of the commons felt out of place in comparison to the other assignments, because it was a group assignment and you had to hand in a report. Though the seminar itself was quite interesting to partake in because you realize that the world isn't a simple model.

It is very easy to miss the deadlines when they are spread out over 2 years. Something to help or remind us would be nice if this is not something you want to test us for(?).

The encouragement to ask questions to next year students is great and that you ask for feedback on other courses, but please be a bit less defensive when we give feedback. In one seminar I said that the Intro to robotics ROS part where you didn't help us at all and just expected us to learn everything by ourselves when (especially for us that went a less programming intensive background bachelor like Vehicle engineering) we don't know how to navigate ROS or anything like it is just all around bad. The seminar leader told me that "This is how it is in the Arbetsliv", this is of course not a valid excuse for a horrible course structure for introduction to ROS. I just didn't like to get this comment when I had feedback that I knew that my classmates also agreed to.

What would you suggest to improve? (I worked: 3-5 timmar/vecka)

Grading scale, make course pass/fail.

Maybe a fun challenge or task related to robotics along with the discussion, something similar to what we did during the introduction day when we got to build something.

What advice would you like to give to future participants?

What advice would you like to give to future participants? (I worked: 0-2 timmar/vecka)

Don't forget your booked time slots

It might seem boring to have another course where you read, write and attend seminars. Especially since the corresponding courses from our bachelors are deeply disliked. Though, I would say that this one is different. You get the opportunity to learn about things that are a bit controversial, form your own opinion (there is no right or wrong) and then discuss it with your peers. You get to see a lot of different perspectives on the same thing and sometimes someone will convince you of things that you didn't know or believed in before, and other times you will convince them.

Write the essays as soon as you can when the assignment is handed out.

do the assignments right as they're released

Even if the thought of some assignments/topics may seem dull or demotivating, I would recommend participating actively in the seminars, it is absolutely possible to make the discussions interesting if you lean in.

do the assignment early so its done. Be on time so you don't lose points

ask questions to next year students about what courses to take etc.

Go for the walking seminars, HP for walking in nature and talking is a great deal.

What advice would you like to give to future participants? (I worked: 3-5 timmar/vecka)

Make sure you set reminders for the deadlines. Missing just one submission by a few hours will knock you down an entire grade.

Take time to think about the questions and see the value in everything. Thinking about deep questions and writing about them is a good skill to practice.

What advice would you like to give to future participants? (I worked: 6-8 timmar/vecka)

Do not wait to last minute to write the reflections. Do them as soon as you can.

Is there anything else you would like to add?

Is there anything else you would like to add? (I worked: 0-2 timmar/vecka)

Great course and a much needed break from everything else.

Last year, I really appreciated the interactive assignments. Firstly, the seminar for which we had to find a person to talk to. I interviewed a post-doc from a course together with a friend and we had genuinely interesting discussions. This is a great way to get some insight into the university's functioning beyond degree education and helps to connect socially with the staff (this also holds for talking to the professors during the seminars in general). Secondly, it was fun to engage in the seminar that focused on systems thinking around fish stocks. That was a great way to reinforce and apply systems thinking in a broader context. The power was in its simplicity and in the unpretentiousness, meaning that there was no expectation to have a perfect model but rather a way of thinking about systems and the assignment did not pretend to teach the ins and outs of the system (since engineering professors are generally not ecosystem experts, this seemed appropriate). Additionally, to some extent, the seminar about ethics also added to this by allowing the choice of one of several topics, which allowed to discuss and share insights on several topics without having to delve deep in every one beforehand. The fact that most of the assignments did not particularly require much time made it easier to engage with the topics where they overlapped with personal interests.

The least enjoyable topics were the ones for which I lacked motivation and seemingly others did too. For example, few people had any experience or novel/interesting perspectives on sexual harassment during the seminar and mostly felt like it was a mandatory subject rather than anyone actually learning something.

SPECIFIC QUESTIONS

RESPONSE DATA

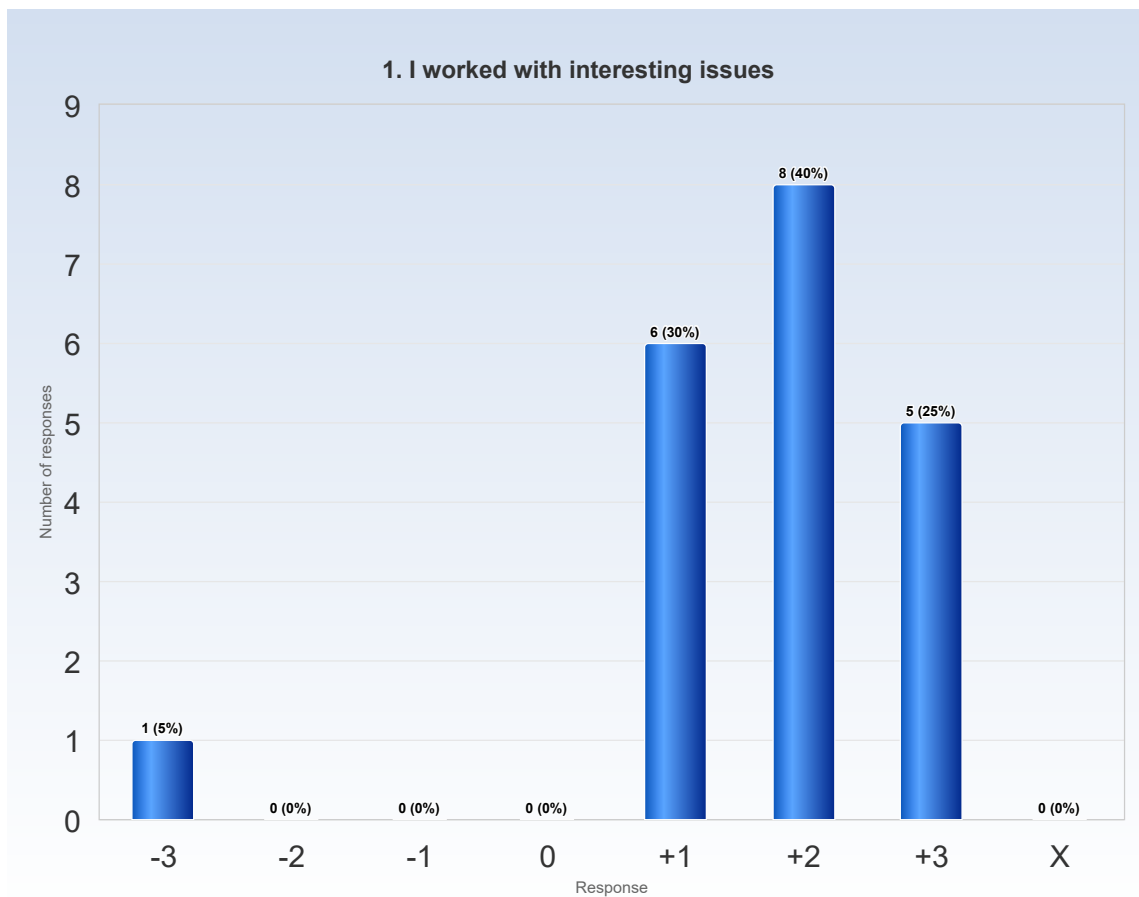
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

-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



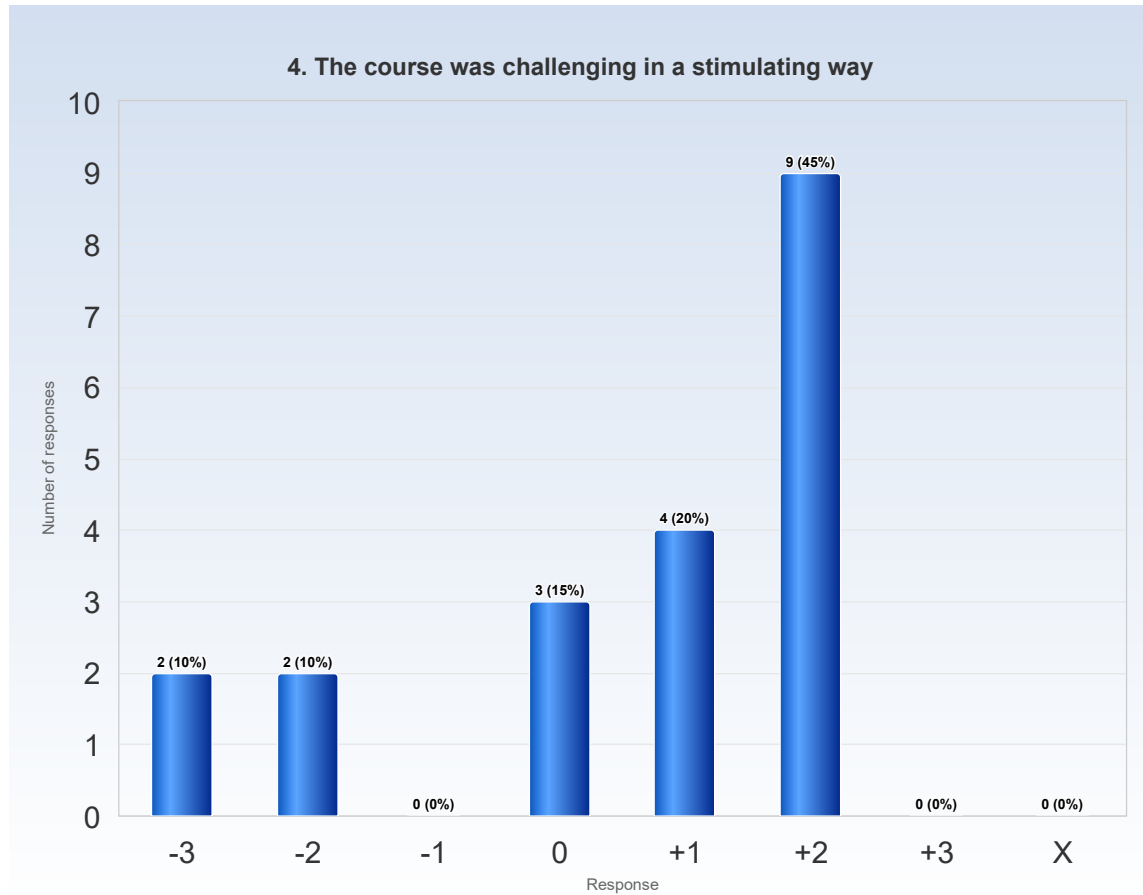
Comments

Comments (My response was: +2)

most of the issues were interesting but some were less, although I understand why they should be brought up

Comments (My response was: +3)

I think that we discussed important issues (harassments, environment etc) in a relaxed environment. People were allowed to think and say that they believed and I felt that was often convinced of other peoples opinions in a way that was new to me. Often standpoints I either hadn't seen or understood previously, but somehow clicked for me and made me feel safe enough to question my own beliefs in a constructive way. It was valuable, especially since I don't think that will happen again. You really need exactly this set (seminar, texts, a bunch of soon-to-be-engineers with a professor leading the seminar) up to accomplish exactly that.

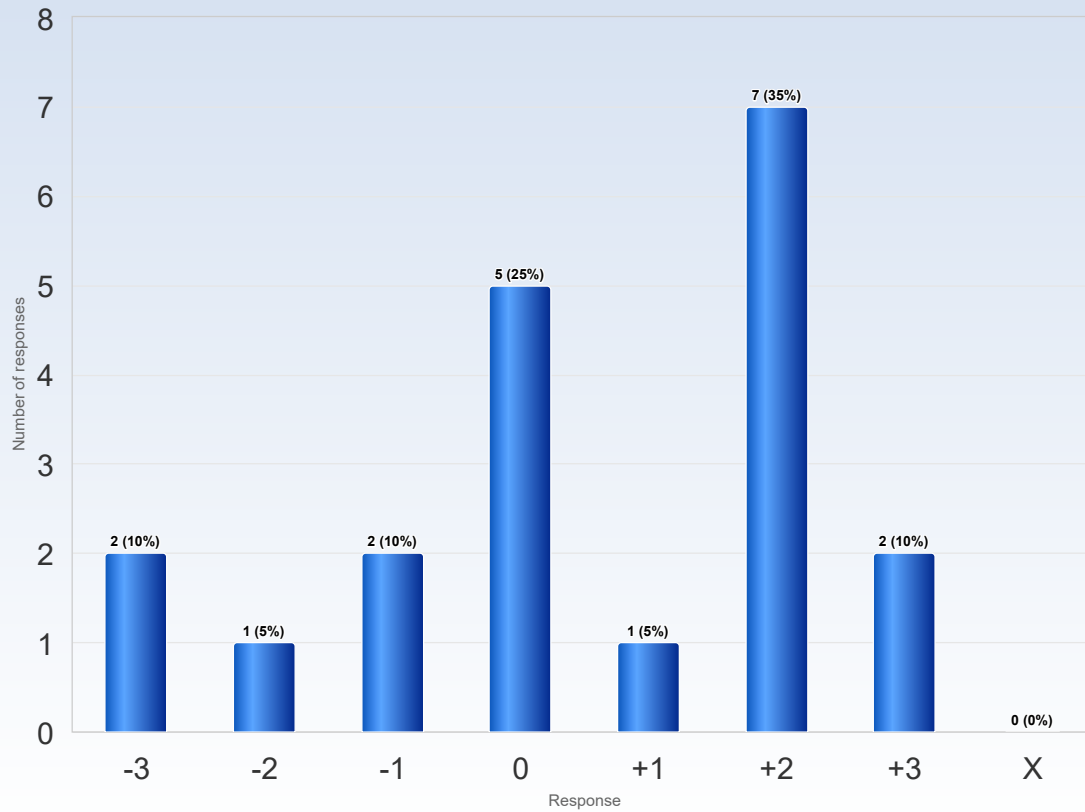


Comments

Comments (My response was: +2)

I think it was challenging in the sense that I challenged my own ideas and perspectives of things.

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



Comments

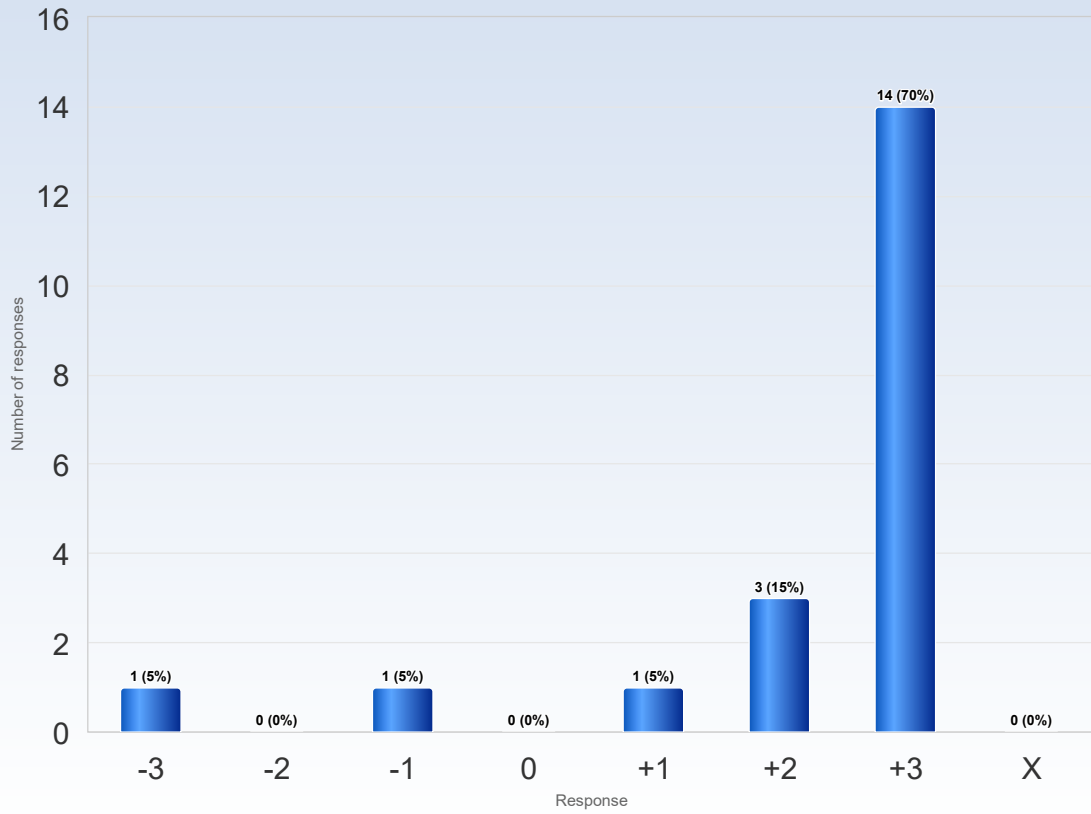
Comments (My response was: -1)

It didn't matter to me personally but you only have one shot at each submission.

Comments (My response was: +2)

Not all examiners left comments but when they did it was nice

16. The assessment on the course was fair and honest

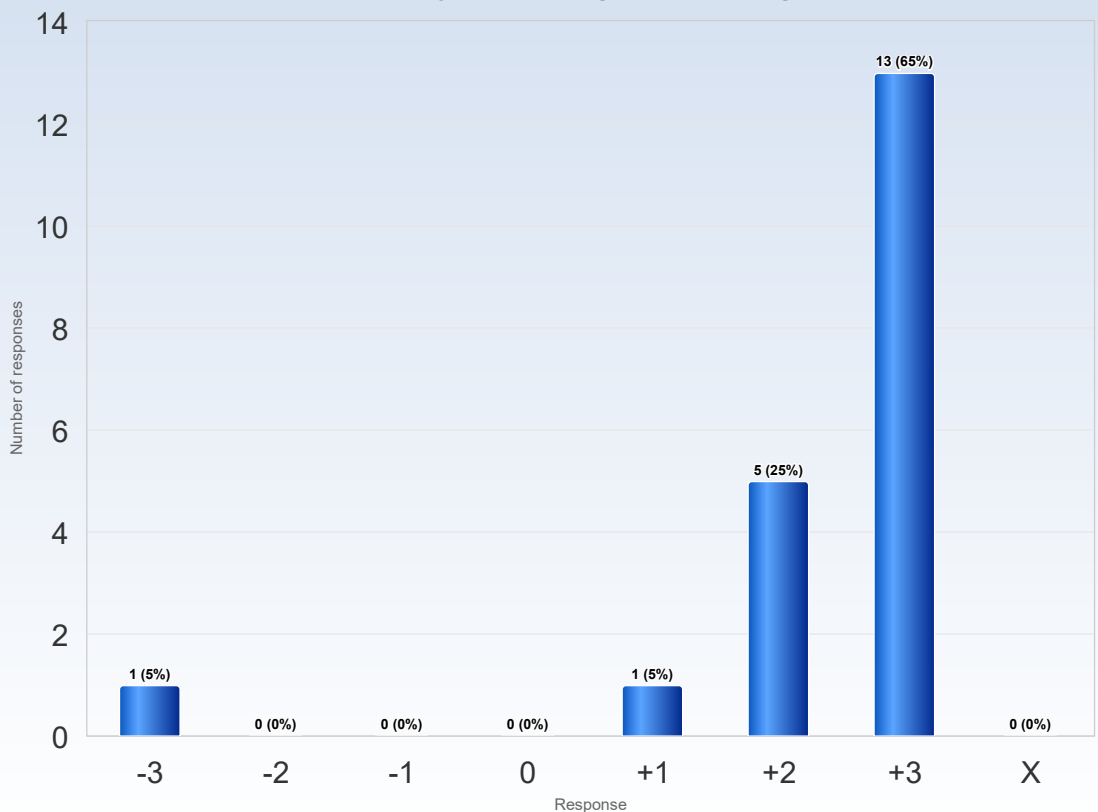


Comments

Comments (My response was: -1)

I do not think this course should be graded, it should be pass fail

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

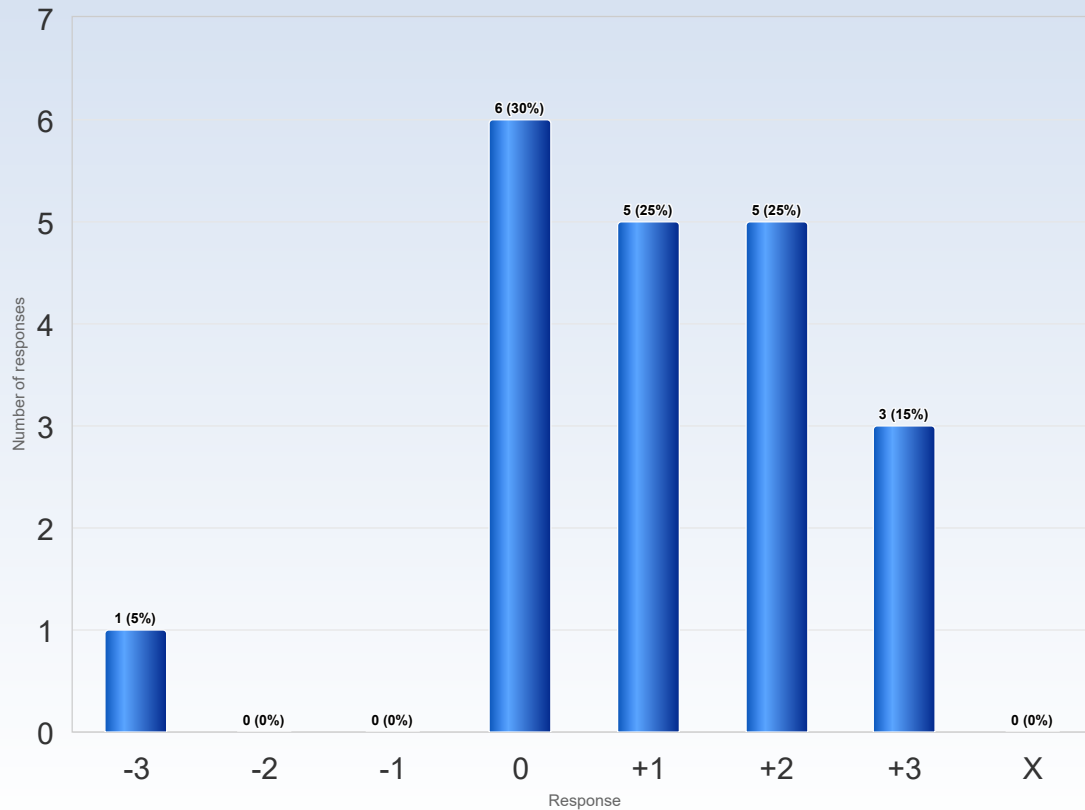


Comments

Comments (My response was: +3)

It was a nice way to meet the rest of the class when we did not share simillare courses. Also a nice way to meet with the younger grade. There should be more courses like this during bachelor

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



SPECIFIKA FRÅGOR

Vad tyckte du om Seminar 1 (SCR and Learning)?

SPECIFIKA FRÅGOR

Vad tyckte du om Seminar 1 (SCR and Learning)?

It was the least interesting topic. I did not feel like this seminar topic was needed

Okay

As a first year student, it was really nice to get to ask questions about courses to the year above

It was ok, wasn't useless but not the most useful one. I would say, of all four seminars, this would be ranked at the last place.

Quite good.

Good to reflect as a first year student

Motivation and context are a good starting point for a first seminar and as a year 2 student it was interesting to discuss with incoming msc students. The Bloom's terminology felt forced and not particularly helpful. The questions could have been more philosophical and they were rather narrow for highlighting the essence of learning and motivation.

I thought this was a good introduction for the course.

I liked this one, probably one of the best ones. Gave an opportunity to talk to second year students. Only drawback is you have to be lucky to be in a seminar with an even distribution of first and second year students.

good

A nice way to discuss about learning with the other students.

Vad tyckte du om Seminar 2 (Ethics)?

Vad tyckte du om Seminar 2 (Ethics)?

This one was interesting and having people write about different topics within the same area (artificial intelligence) made the debate during the seminar more interesting.

Interesting, especially today with AI

Very good! I think it's important for us engineers to have a better understanding of ethics and to make decisions on what we choose to participate in and develop.

Nothing bad that I can remember.

Good topic to discuss in engineering

It was great to have a choice of topic. That allowed to think about the topic that was most interesting while being able to discuss and learn something about all topics that were available during the seminar.

It was an interesting topic to write about and it was fun to hear about others perspective on the subject.

this one was interesting as well, though it highlights the importance to think of the actual work you do as an engineer

This was my favorite topic

Interesting topic about issues that are relevant especially with the recent increase in AI development

Vad tyckte du om Seminar 3 (Climate Change)?

Vad tyckte du om Seminar 3 (Climate Change)?

This topic was fine. But it is a boring topic since everyone has the same opinions about it. Most 20-30yo share the same opinions and ideas on climate change.

Good topic to delve deep into

I liked it! I didn't learn a lot about the environment because most of it are things I already know from elementary school, high school and from my bachelor. Though, I did learn a lot about how I should think about the environment, which decisions are good and bad to make. What solutions we have, what's being developed, what the problems are etc. That is even more important since those are the thoughts and opinions that are useful for the future. I also think we got good and fairly neutral articles for these purposes and that provided a good starting point.

Interesting.

Important topic to discuss in engineering

This was a rather boring and superficial seminar in my opinion. Climate change for me is interesting and relevant to learn about, but no new insights were provided, let alone that anyone in the room has particular expertise on this subject. It would have been more interesting to focus the assignment/discussion around certain facts that students would get the choice to engage with beforehand and then discuss. It is difficult to get this right since climate science is such a complicated topic and it easily becomes a rather 'woke' and forced narrative that is backed more by feelings than by data/science.

I think this is a very important topic today and was happy it was one of the seminar. The other students gave me a lot of things to reflect on and there are many cool inventions being created in this field.

this one did not shed much new light to the topic, everyone in the group was basically agreeing.

good

Necessary topic, a good thought provoker.

Vad tyckte du om Seminar 4 (Sexual Harassment)?

Vad tyckte du om Seminar 4 (Sexual Harassment)?

It was interesting. I think it is an important topic.

Important, but maybe not what I was expecting as a topic in the course

It was really good! I felt that it helped me put words into things that had been difficult to describe before. For example, I would know that something didn't feel good or would make me uncomfortable, but through the seminar it was obvious that what I felt was validated, why it was validated, how we can prevent it etc. It was also interesting to see it from the guys' perspectives because it was well-meaning intentions behind the acts that in theory would make someone uncomfortable. Most valuable of all was that we all got new perspectives on the topic and we figured out some guidelines to prevent making both men and women uncomfortable in work environments.

Since everyone in the seminar had the same ideas it became a bit slow. It's a topic that has been taken up many times before. Not that it's not important, because it is.

Important topic to discuss in engineering

a bit out of scope of the course i think

Personally, I have/had very little experience with and exposure to this topic and the same seemed to hold for others. In my opinion, it was more interesting to talk about the more general topic of interpersonal communication and the boundaries therein. That is something that is relevant for everyone involved and can address sexual harassment while also covering a plethora of other more prevalent aspects of social interaction in university/workplace/life. Now, neither the professor nor the students had any novel/interesting perspectives to share and the discussion remained rather passive and superficial whereas the topic of interpersonal communication and the possibilities and problems that it can bring is very interesting!

Very important topic!

This is an important topic to discuss, but I as a woman found this topic very depressing to talk about.

my seminar group was full of men, though we still discussed the topic I don't think it is the same as discussing it with the female perspective (given that that person wants to discuss it)

This was a good and important topic

I guess it was necessary but felt like there could have been something else that could be more beneficial.