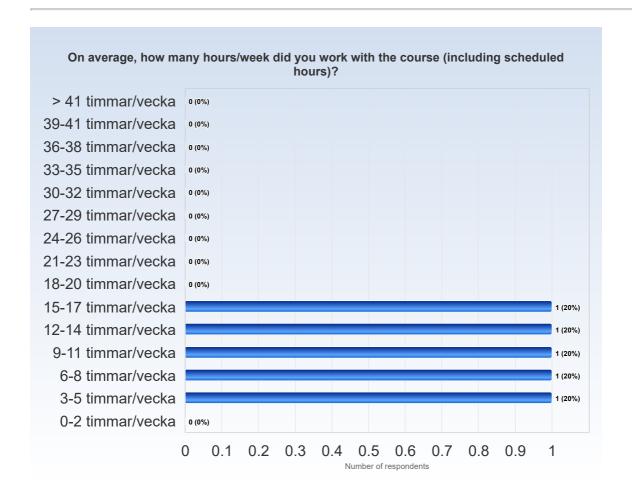
#### BB2450 - 2023-05-29

Antal respondenter: 26 Antal svar: 5 Svarsfrekvens: 19,23 %

### **ESTIMATED WORKLOAD**



Comments

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

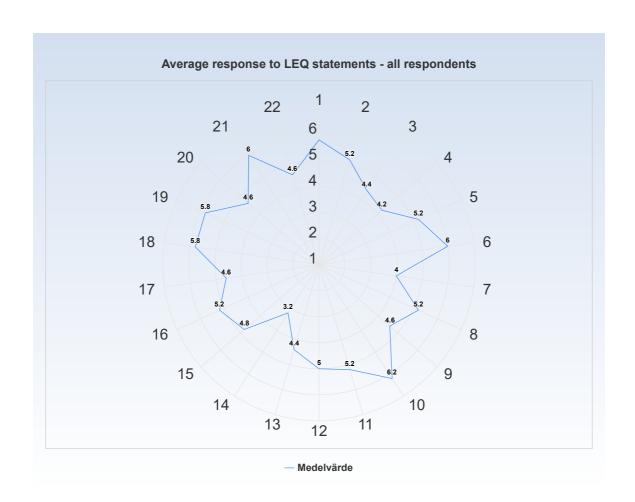
There are a lot of lectures per week but the work outside of scheduled hours is reasonable

#### 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 (I)

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
- I) 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

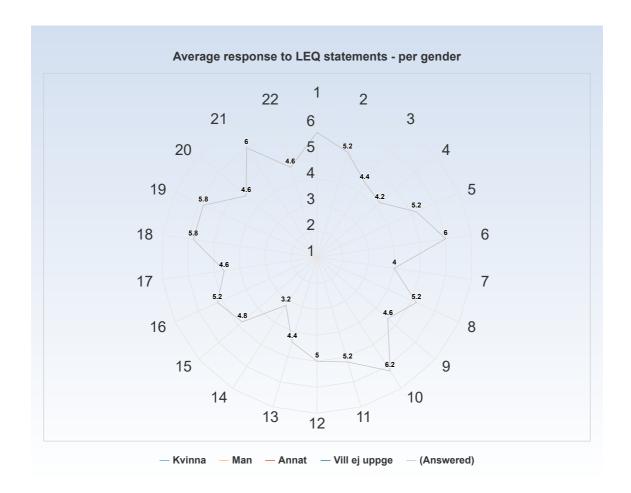
Bain, K. (2004). What the Best College Teachers Do, Chapter 5, pp. 98-134. Cambridge: Harvard University Press.

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

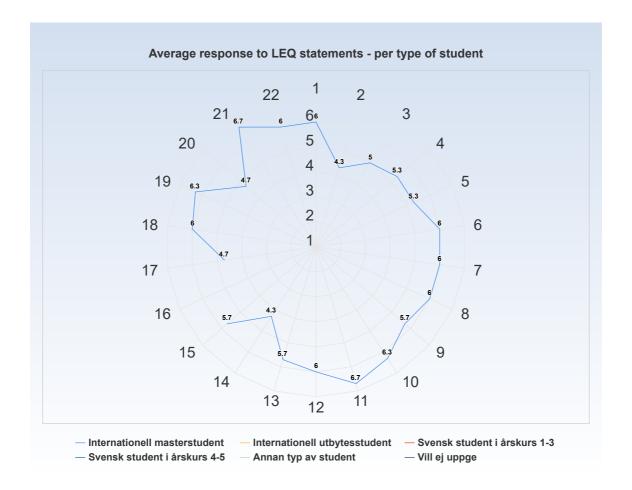
Elmgren, M. & Henriksson, A-S. (2014). *Academic Teaching*, Chapter 3, pp. 57-72. Lund: Studentlitteratur.

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.



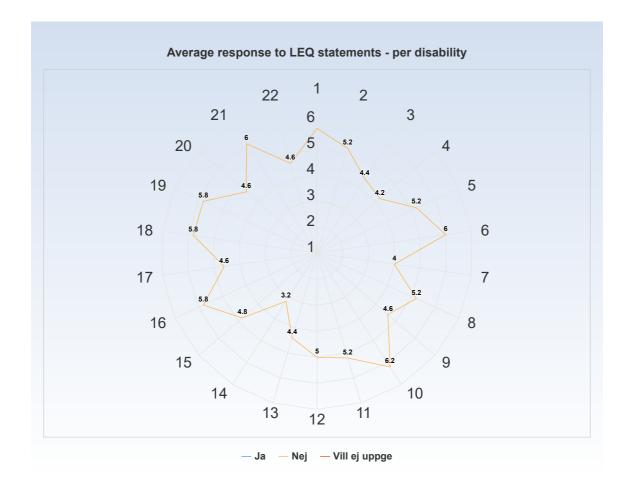
Comments (I am: Annat)



Comments (I am: Internationell masterstudent)

The course was in english so that was all good.

Comments (I am: Internationell utbytesstudent)
i didn't feel trully included in the asignment's discussions with my classmates.



Comments (My response was: Nej)

all good

### **GENERAL QUESTIONS**

What was the best aspect of the course?

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

The open presentations and working together on topics without homework-preparations were a great new way of learning. it really makes you work out things and work as a team. special shout out to Lauren McKee, who had us paint posters in the class, which was wonderfully creative and a great skill to learn. It would have been nice to have a bit more time in these seminar sessions to discuss afterwards our short presentations.

presentations.
The intermediate exam was a great way to get people a smoothe start into the topic

What was the best aspect of the course? (I worked: 6-8 timmar/vecka)

The seminars! Reading and discussing different topics. Comparing methods etc

What was the best aspect of the course? (I worked: 9-11 timmar/vecka) the guest lectures and the tour visit to Karoliska Institutet

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

I deeply enjoyed the exercise sessions for each module and their different methods (presenting, writing, simulation).

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

Having both lectures and presentations from students made the course more alive.

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

The course had little structure and students were not informed beforehand on what the schedule will be. There seemed to be little conversation between different teachers and/or bad preparation of the canvas page.

An important part of teachers standing in closer contact with each other would be that there could be a bit more diversity in the examples we are working on. It felt quite repetitive after the third module or so.

My most important suggestion about the course however is the exam! The way this exam was held did not feel like a Masters level at all. I feel we should be at a point of our education where we can do more than list 5 ingredients of a medium. Additionally, the exam was very long for 4.5 ECTS, questions to be answered in 2 sentences had the same amount of points given as questions to be answered in a page. Some questions were not fully formulated, with incorrect spelling or not really english. (Except for Thomas Crouzier whose questions felt Master leved appropriate and well formulated).

My suggestion would be to give a home exam or a project instead, where the students get a NEW product (one that has not been covered in the course) and with the knowledge aquired through the course set up a plan on how to produce this in a cell factory.

#### What would you suggest to improve? (I worked: 6-8 timmar/vecka)

I thought the section on vaccines was a bit off. If we are to talk about how vaccines work it needs to be more through, and i dont think that it is suitable to just make a list of vaccine side effects (some example potentially controversial like neurological impairment) without really going in depth on vaccines, how they work on a immunological and molecular level, and then reference how this, in some cases, can cause certain side effects, and then also explain in depth the reason for the occurens of said side effects. I found that part of the course, as it is formatted right now to be problematic and misguiding

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

The organization of the course. What we are asked for to do in the exam and what was explained in the lectures was not related. The course whould have some practice and exercise sessions so that we could prepare and come up with questions for the exam.

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

For the exercise on module 4 it is important to give a proper introduction on what is expected from us. The assistants thought Véronique had done this already and maybe Véronique thought the assistants would do that. So, after several students have asked for a little intro it was given two hours after we had already started.

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

The class activities are really nice and even though it might be hard timing wise, I felt that the ones were I learnt the most were the ones when we prepared the presentations in class and not before hand because it was really hard for us to meet so doing it in class allowed more exchange and discussion, hence more understanding.

However, even if it's nice to have student presenting it is always more difficult to follow than a teacher, so it was nice when teachers posted

summaries of the activities on canvas.

The project was interesting to grasp the concepts from the class and imagine the real process but we were let a bit to free and a bit more explanations at the beginning about the goal, the expectations and the assignments due along the way would have made it easier on the students and TAs.

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)

not to waste time on the lecture slides and look for information on their own. The lectures slides don't really help pass the course

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

Take each exercise as a chance to repeat the respective module content so you have less to learn right before the final exam.

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

Attend all the class and work regularely. But even if you don't work weekly and only for the midterm and final, really attend all the classes, it really makes this course easier

Is there anything else you would like to add?

#### Is there anything else you would like to add? (I worked: 9-11 timmar/vecka)

the assignments were a good idea to motivate you study but not enough information was given in the lectures for us to be able to solve the

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

I think it would have been nice to also have a little exercise for module 6.

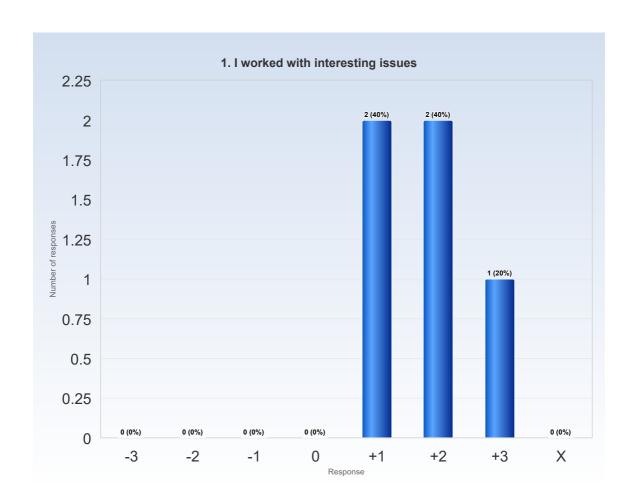
#### SPECIFIC QUESTIONS

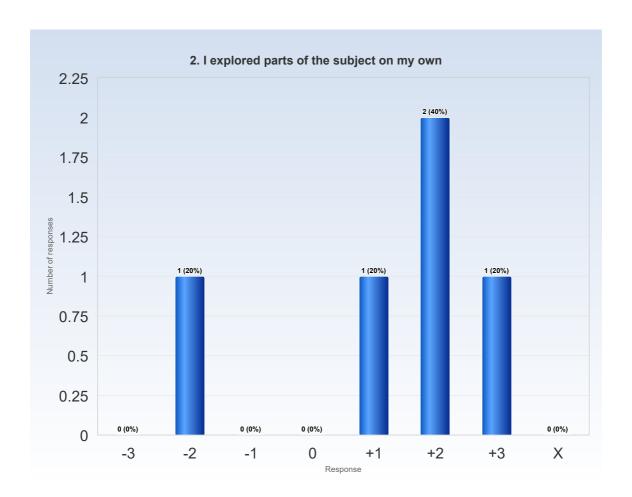
### **RESPONSE DATA**

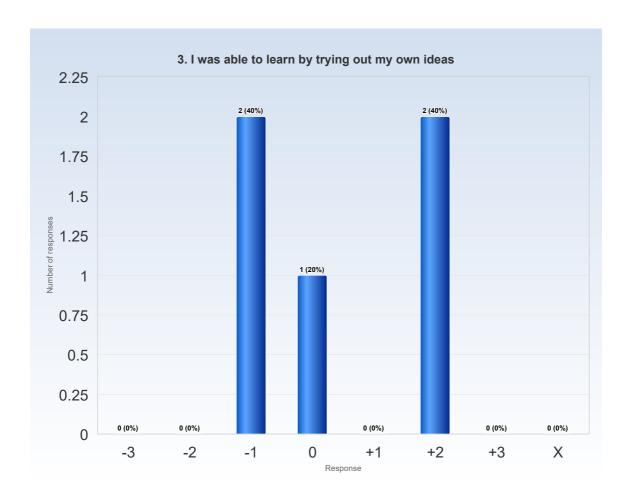
The diagrams below show the detailed response to the LEQ statements. The response scale is defined by:

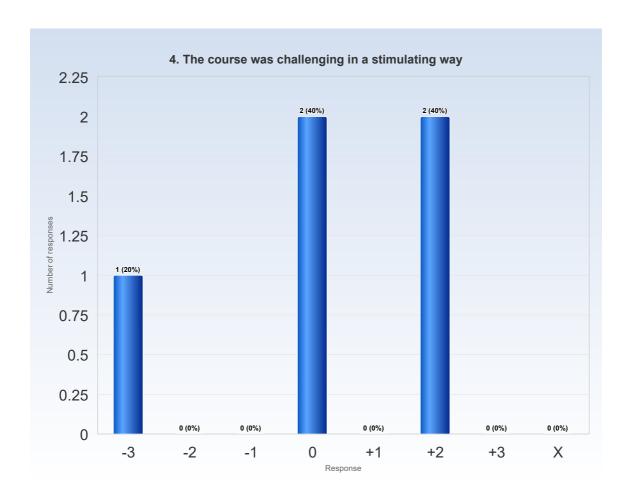
- -3 = No, I strongly disagree with the statement
- 0 = I am neutral to the statement
- +3 = Yes, I strongly agree with the statement

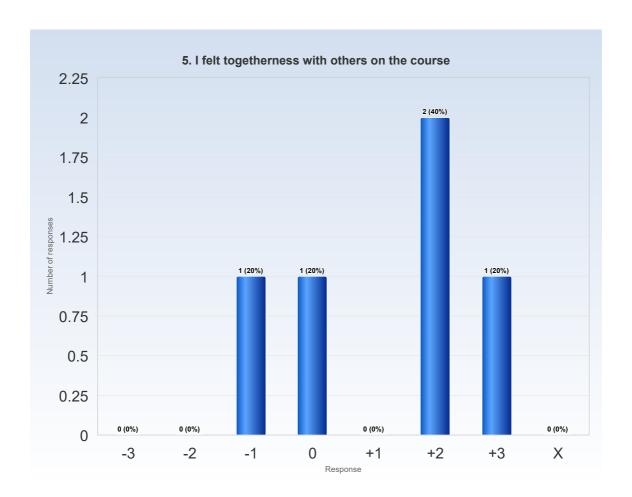
X = I decline to take a position on the statement

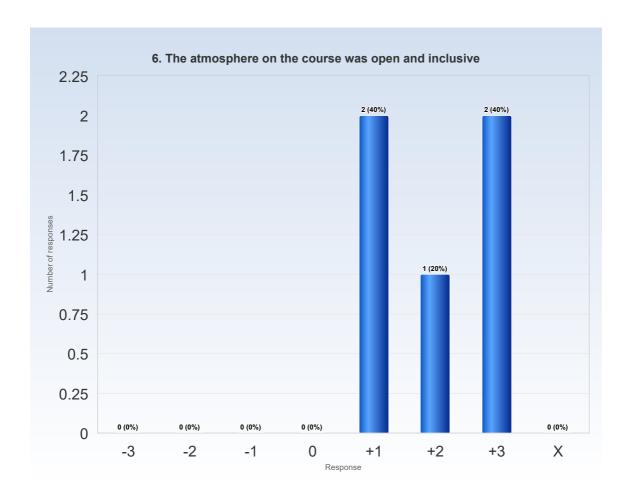


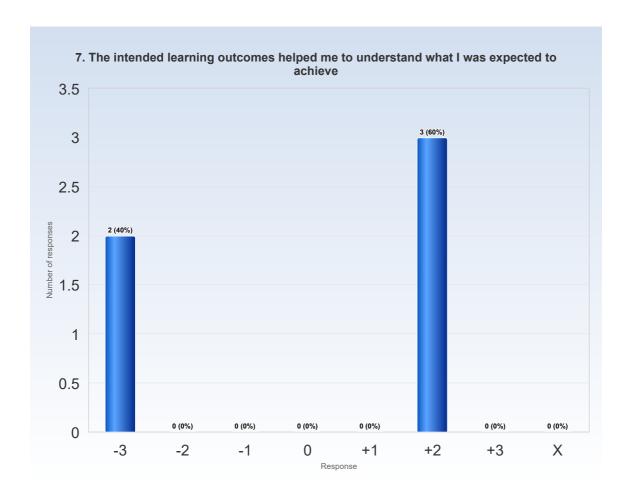


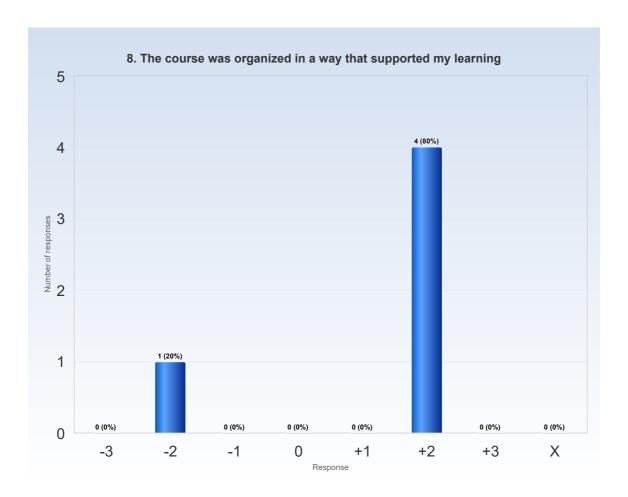


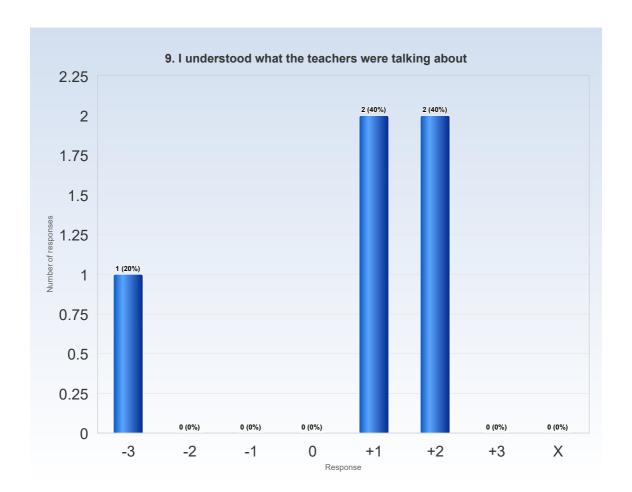


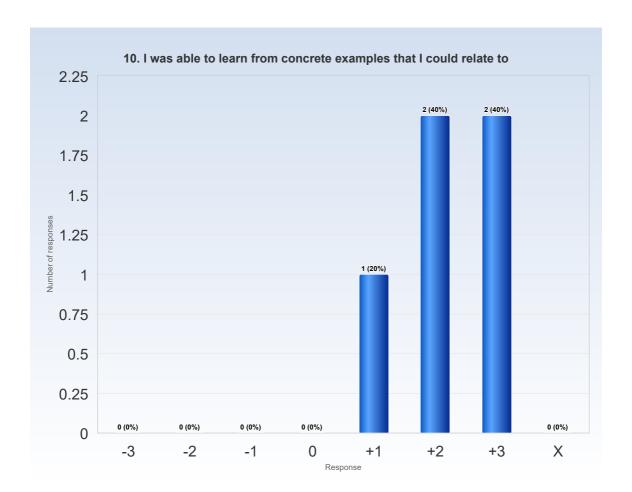


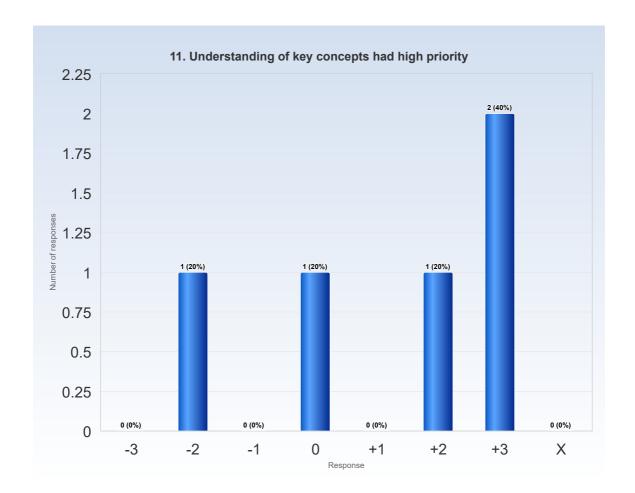




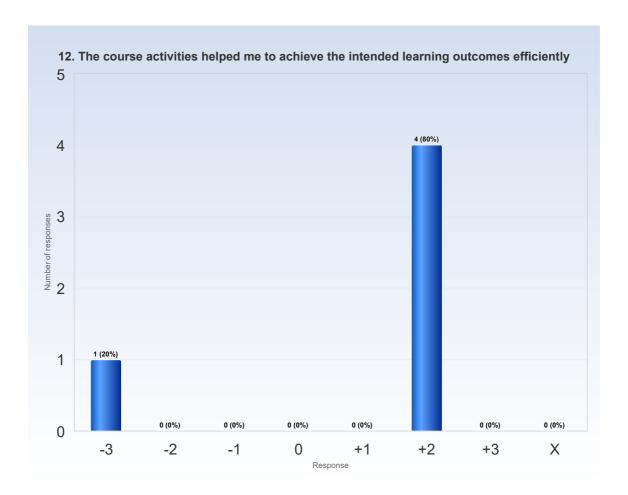


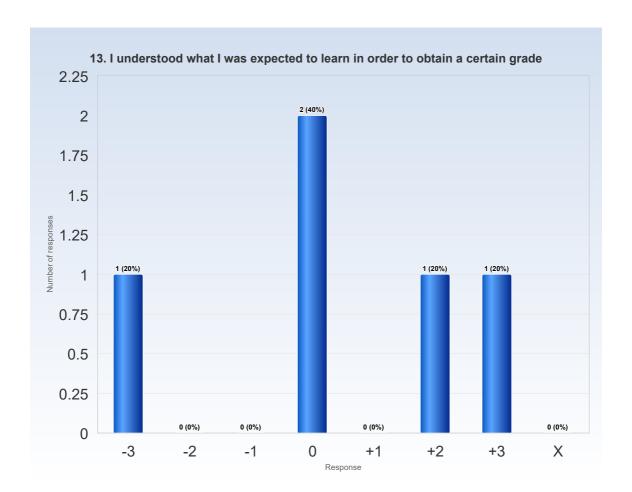


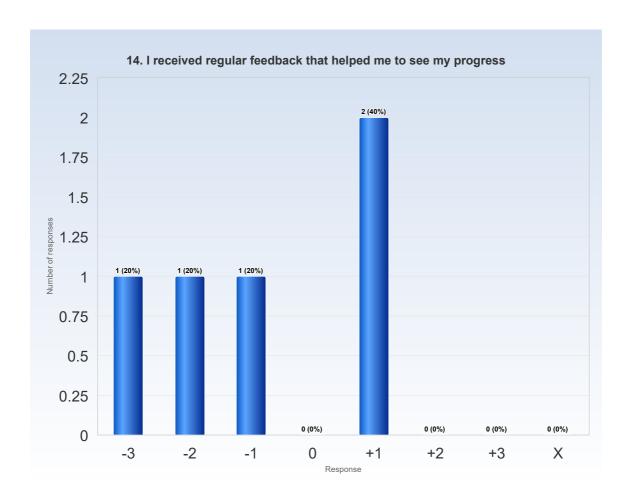


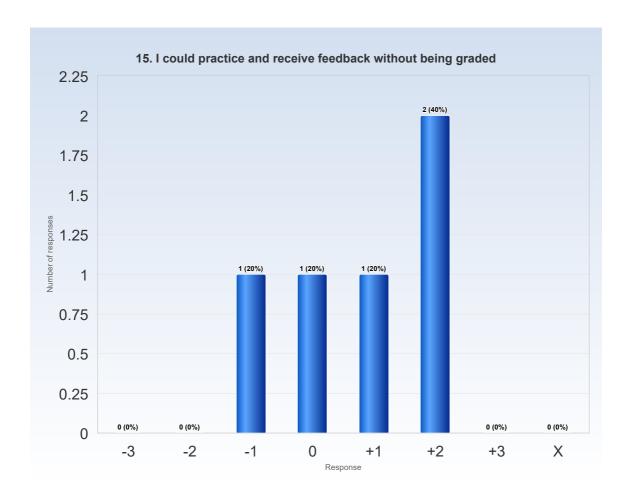


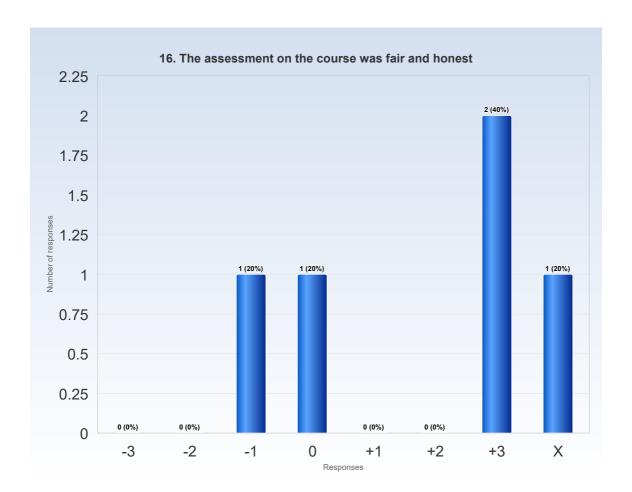
Comments (My response was: +3)
having access to past exams was really useful to understand what was important in each module in complement to the course

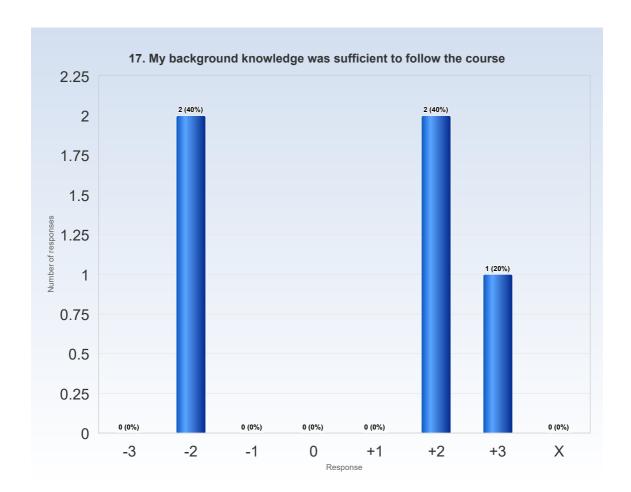






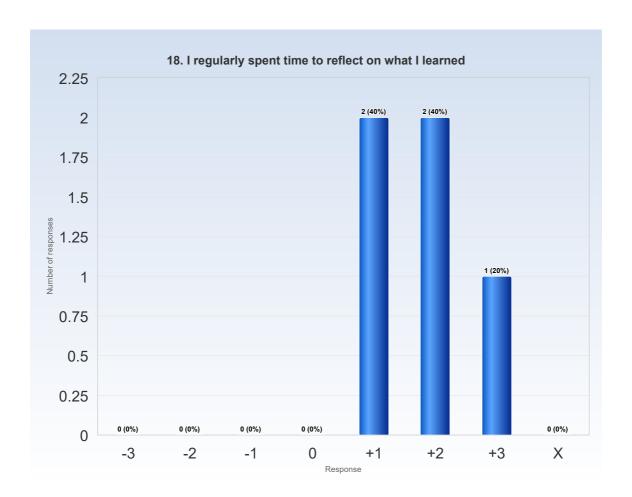


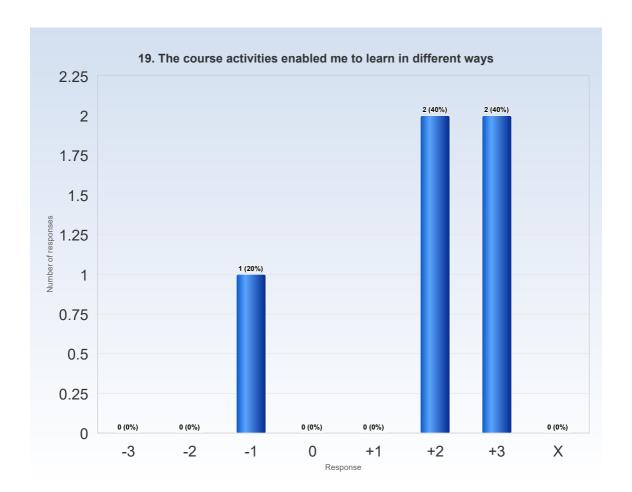


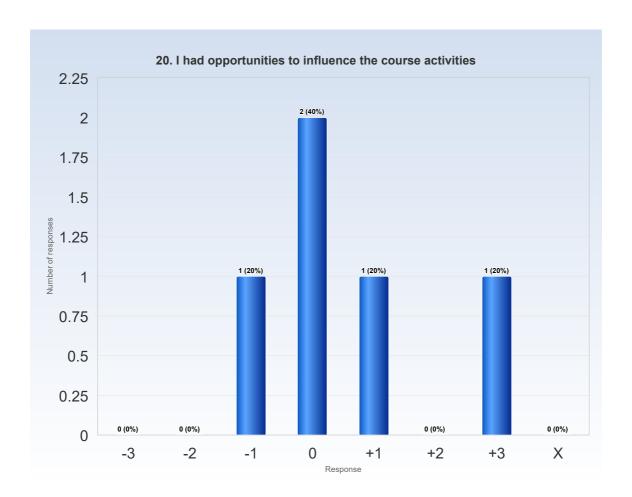


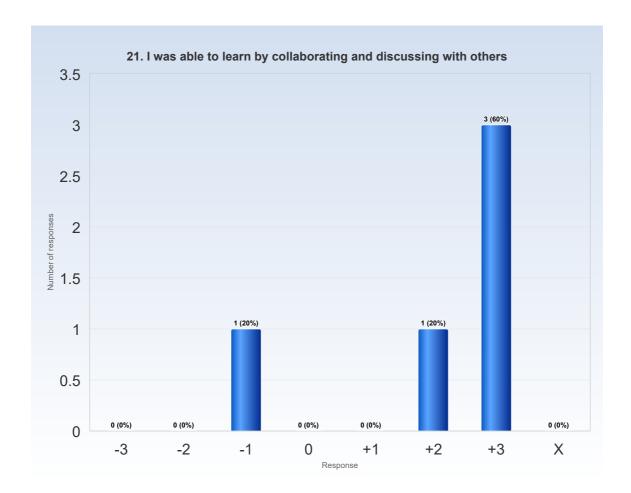
Comments (My response was: -2)

I did not have a biology background and it made it hard to follow, especially not having taking specific classes during my bachelor that some teachers were mentionning









Comments (My response was: +3)
the activities were really helpful

