



LUND UNIVERSITY
Faculty of Science

Centre for Mathematical Sciences
Division of Mathematics and Numerical
Analysis

Course Analysis for NUMN21 Advanced Course in Numerical Algorithms with Python/SciPy Autumn 2024

Course Information

Lecturer: Robert Klöfkor, Andreas Langer

Teaching assistants:

Number of students:

16 newly registered and 0 re-registered.

10 students answered the course evaluation, 2 of them are enrolled on Master's Programme in Mathematics.

Examination

Project: 15 students passed.

Final grades:

In all, 15 students, including 0 re-registered students, have got their final grade: G (Passed).

Course Evaluation

Summary of student's answers:

For this course with double course code the survey was carried out by LTH (course code FNMM05) and sent out to all students of the course. 10 students answered the survey.

Teachers' comments:

The teaching team thought the course went very well. The attached survey shows overall very positive feedback. There were some concerns about the project addons and the way the project presentations were carried out.

Suggestions for the next course realisation:

For the upcoming course realisation the addon projects will be announced in advance to be less surprising to students. For the project presentations the teacher team will implement changes to encourage more student engagement during the presentation.

Course evaluation report - CEQ, FMNN25

Basic facts

Course name	Advanced Course in Numerical Algorithms with Python/SciPy		
Course code	FMNN25	Study hours according the curricula	
ECTS credits	7.5 hp	Lectures	28 h
Year	202425	Group work	0 h
Study period the course was finished	HT_LP1	Laboratories	0 h
Programme	all	Time with supervisor	3 h
Registrated students	57	Self study time	169 h
Number answers and response rate	11 / 19 %		
Number answers from males	7		
Number answers from females	4		

Since less than 20 students have answered the questionnaire no statistical significance tests have been made.

Summary of questionnaires

The CEQ-score span between -100 och +100, there -100 means that "I fully disagree to the statement" and +100 "I fully agree to the statement".

Presence at teaching

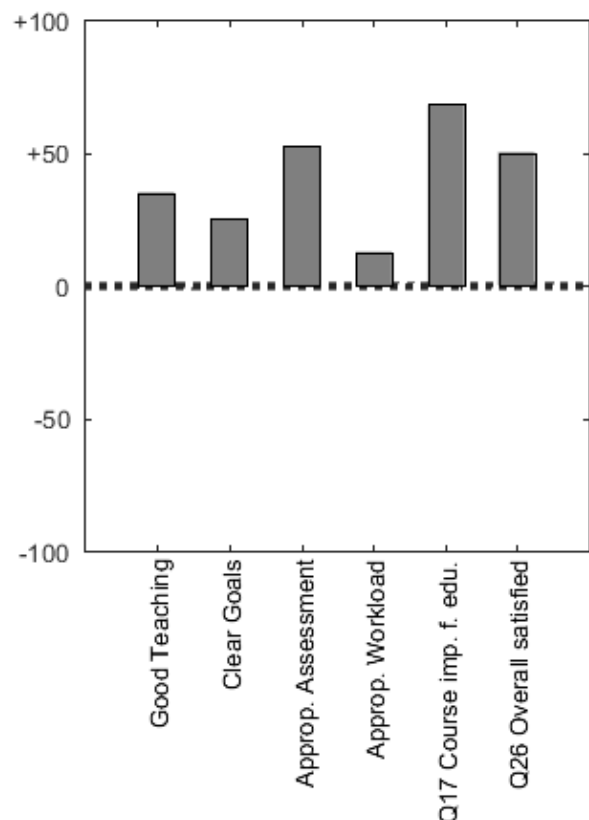
Part of teaching	Number	Share
0 %	0	0 %
20 %	0	0 %
40 %	0	0 %
60 %	1	9 %
80 %	1	9 %
100 %	9	82 %

CEQ-scales & special questions

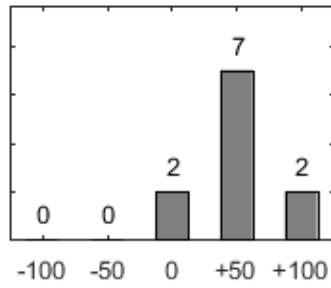
Scale	CEQ-score	StdDev
Good Teaching	+35	45
Clear Goals and Standards	+25	61
Appropriate Assessment	+53	40
Appropriate Workload	+13	39
Generic Skills	+53	22

Special questions

The course seems important for my edu.	+68	34
Overall, I am satisfied with this course	+50	32



Distribution of the answers from question 26: "Overall, I am satisfied with this course"

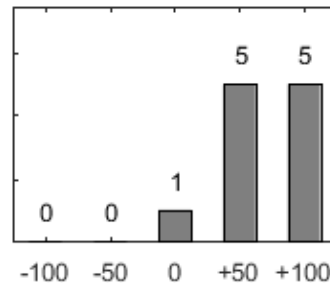


CEQ-score mark Number Share

Dissatisfied (<0)	0	0 %
Neutral (0)	2	18 %
Satisfied (>0)	9	82 %
No answer	0	0 %

Mean of CEQ-score	+50
Standard deviation (StdDev)	32

Distribution of the answers from question 17: "The course seems important for my education"



CEQ-score mark Number Share

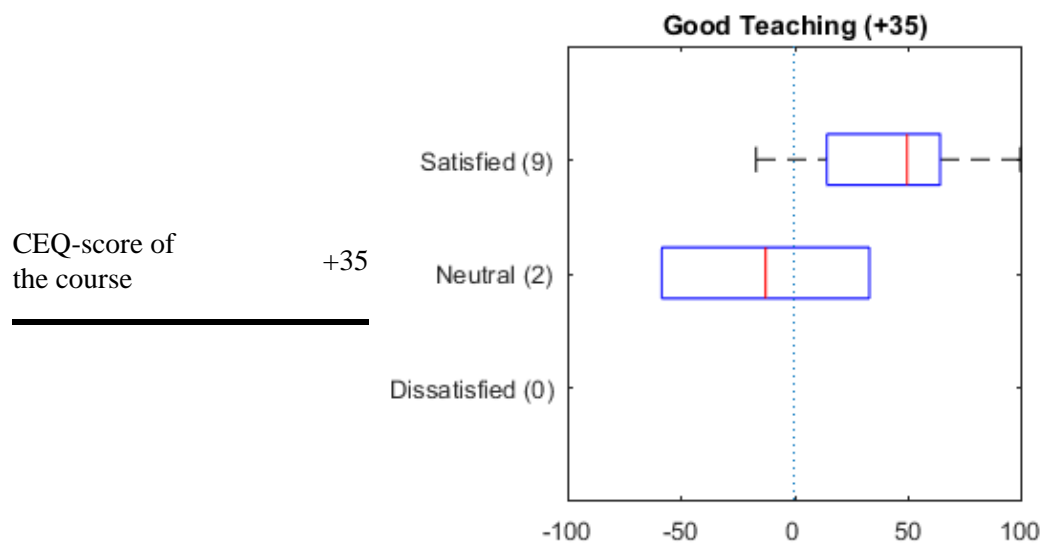
-100	0	0 %
-50	0	0 %
+0	1	9 %
+50	5	45 %
+100	5	45 %

Mean of CEQ-score	+68
Standard deviation (StdDev)	34

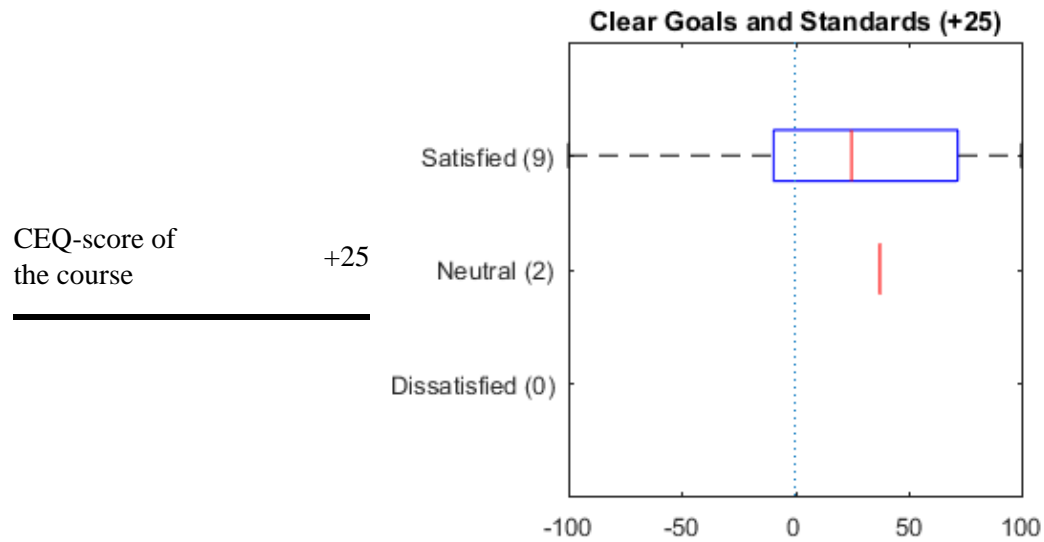
Summary scales divided on satisfaction

Statistical examination has not been done due to at least two groups consist of less than five students

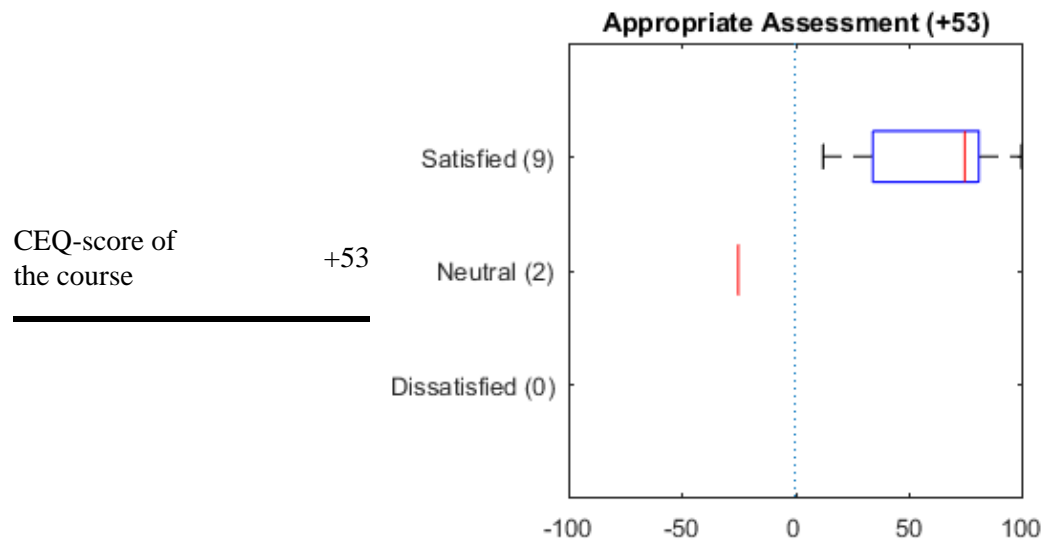
Good Teaching



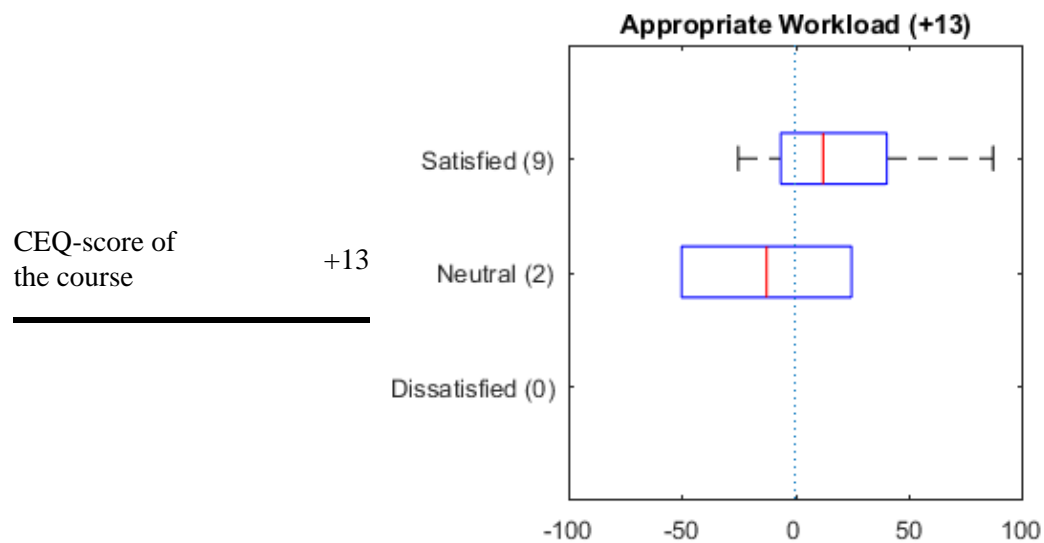
Clear Goals and Standards

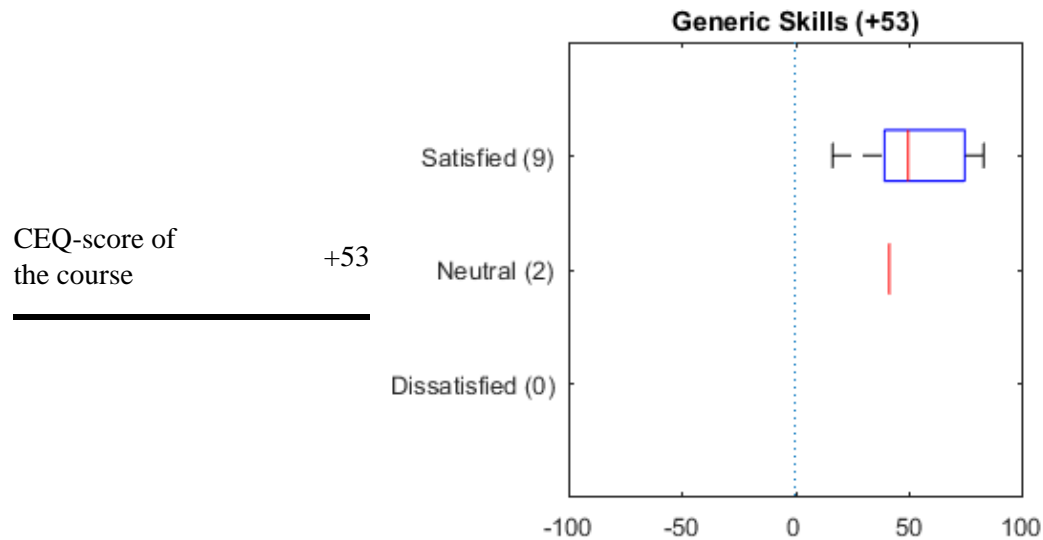


Appropriate Assessment



Appropriate Workload



Generic Skills**Answers to each question**

The questions in bold are reverse positive.

Statistical examination between dissatisfied and satisfied has not been done due to at least one of the groups consist of less than five students

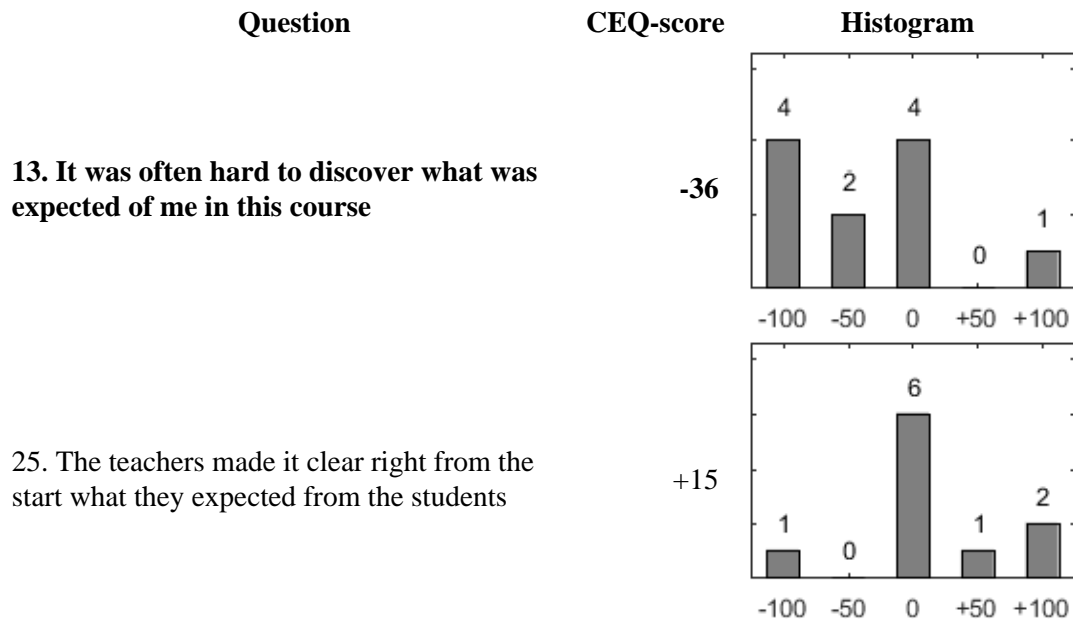
Good Teaching (+35)

Question	CEQ-score	Histogram
3. The teaching has motivated me to do my best	+45	
7. During the course I have received many valuable comments on my achievements	+36	
15. The teachers made a real effort to understand the problems and difficulties one might be having in this course	+27	

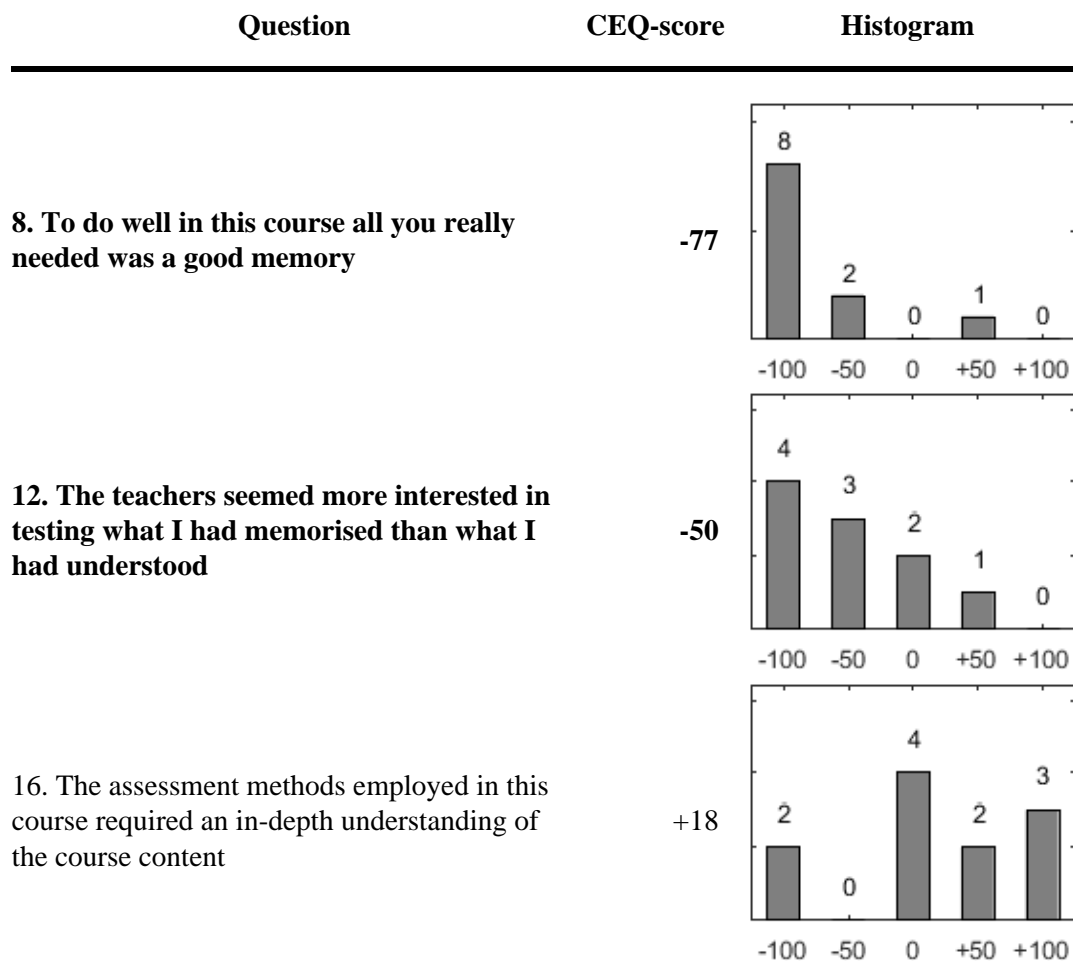
Question	CEQ-score	Histogram												
18. The teaching staff normally gave me helpful feedback on the progress of my work	+23	<table><tr><th>Score</th><th>Frequency</th></tr><tr><td>-100</td><td>2</td></tr><tr><td>-50</td><td>1</td></tr><tr><td>0</td><td>2</td></tr><tr><td>+50</td><td>2</td></tr><tr><td>+100</td><td>4</td></tr></table>	Score	Frequency	-100	2	-50	1	0	2	+50	2	+100	4
Score	Frequency													
-100	2													
-50	1													
0	2													
+50	2													
+100	4													
19. My lecturers were extremely good at explaining things	+36	<table><tr><th>Score</th><th>Frequency</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>0</td></tr><tr><td>0</td><td>5</td></tr><tr><td>+50</td><td>4</td></tr><tr><td>+100</td><td>2</td></tr></table>	Score	Frequency	-100	0	-50	0	0	5	+50	4	+100	2
Score	Frequency													
-100	0													
-50	0													
0	5													
+50	4													
+100	2													
21. The teachers on the course worked hard to make the subject interesting	+41	<table><tr><th>Score</th><th>Frequency</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>1</td></tr><tr><td>0</td><td>1</td></tr><tr><td>+50</td><td>8</td></tr><tr><td>+100</td><td>1</td></tr></table>	Score	Frequency	-100	0	-50	1	0	1	+50	8	+100	1
Score	Frequency													
-100	0													
-50	1													
0	1													
+50	8													
+100	1													

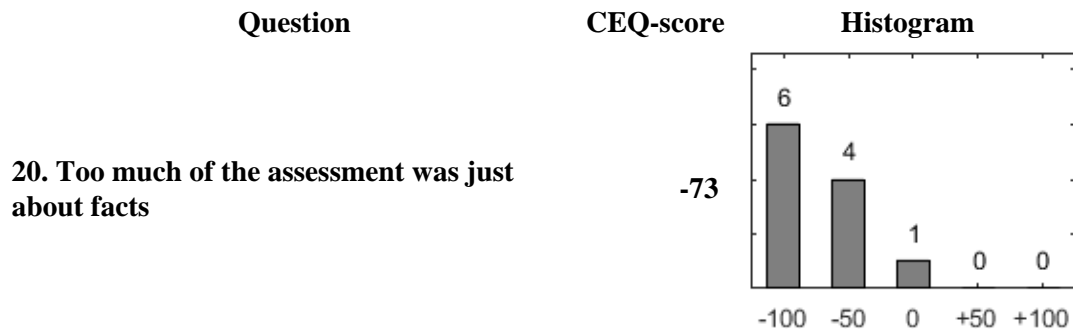
Clear Goals and Standards (+25)

Question	CEQ-score	Histogram												
1. It was easy to know the standard of work expected	+18	<table><tr><th>Score</th><th>Frequency</th></tr><tr><td>-100</td><td>2</td></tr><tr><td>-50</td><td>1</td></tr><tr><td>0</td><td>2</td></tr><tr><td>+50</td><td>3</td></tr><tr><td>+100</td><td>3</td></tr></table>	Score	Frequency	-100	2	-50	1	0	2	+50	3	+100	3
Score	Frequency													
-100	2													
-50	1													
0	2													
+50	3													
+100	3													
6. I usually had a clear idea of where I was going and what was expected of me in this course	+23	<table><tr><th>Score</th><th>Frequency</th></tr><tr><td>-100</td><td>1</td></tr><tr><td>-50</td><td>2</td></tr><tr><td>0</td><td>2</td></tr><tr><td>+50</td><td>3</td></tr><tr><td>+100</td><td>3</td></tr></table>	Score	Frequency	-100	1	-50	2	0	2	+50	3	+100	3
Score	Frequency													
-100	1													
-50	2													
0	2													
+50	3													
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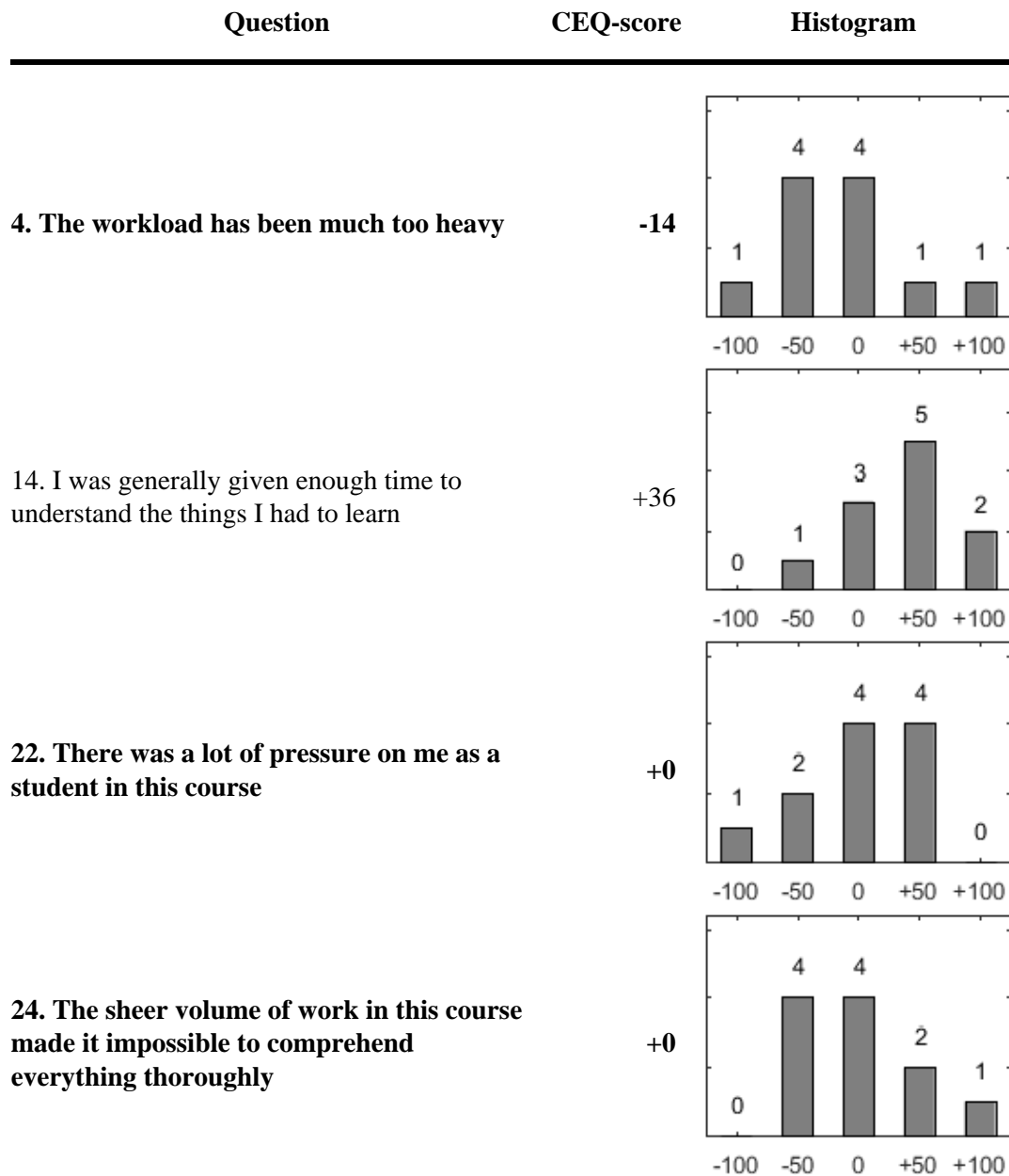


Appropriate Assessment (+53)





Appropriate Workload (+13)



Generic Skills (+53)

Question	CEQ-score	Histogram												
2. The course has developed my problem-solving skills	+77	<table><tr><th>Score</th><th>Count</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>0</td></tr><tr><td>0</td><td>0</td></tr><tr><td>+50</td><td>5</td></tr><tr><td>+100</td><td>6</td></tr></table>	Score	Count	-100	0	-50	0	0	0	+50	5	+100	6
Score	Count													
-100	0													
-50	0													
0	0													
+50	5													
+100	6													
5. The course has sharpened my analytic skills	+64	<table><tr><th>Score</th><th>Count</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>0</td></tr><tr><td>0</td><td>1</td></tr><tr><td>+50</td><td>6</td></tr><tr><td>+100</td><td>4</td></tr></table>	Score	Count	-100	0	-50	0	0	1	+50	6	+100	4
Score	Count													
-100	0													
-50	0													
0	1													
+50	6													
+100	4													
9. The course helped me develop my ability to work in a group	+77	<table><tr><th>Score</th><th>Count</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>0</td></tr><tr><td>0</td><td>1</td></tr><tr><td>+50</td><td>3</td></tr><tr><td>+100</td><td>7</td></tr></table>	Score	Count	-100	0	-50	0	0	1	+50	3	+100	7
Score	Count													
-100	0													
-50	0													
0	1													
+50	3													
+100	7													
10. The course has made me feel more confident about tackling new and unfamiliar problems	+64	<table><tr><th>Score</th><th>Count</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>0</td></tr><tr><td>0</td><td>1</td></tr><tr><td>+50</td><td>6</td></tr><tr><td>+100</td><td>4</td></tr></table>	Score	Count	-100	0	-50	0	0	1	+50	6	+100	4
Score	Count													
-100	0													
-50	0													
0	1													
+50	6													
+100	4													
11. The course has improved my skills in written communication	-30	<table><tr><th>Score</th><th>Count</th></tr><tr><td>-100</td><td>1</td></tr><tr><td>-50</td><td>5</td></tr><tr><td>0</td><td>3</td></tr><tr><td>+50</td><td>1</td></tr><tr><td>+100</td><td>0</td></tr></table>	Score	Count	-100	1	-50	5	0	3	+50	1	+100	0
Score	Count													
-100	1													
-50	5													
0	3													
+50	1													
+100	0													
23. The course has helped me to develop the ability to plan my work	+36	<table><tr><th>Score</th><th>Count</th></tr><tr><td>-100</td><td>0</td></tr><tr><td>-50</td><td>2</td></tr><tr><td>0</td><td>2</td></tr><tr><td>+50</td><td>4</td></tr><tr><td>+100</td><td>3</td></tr></table>	Score	Count	-100	0	-50	2	0	2	+50	4	+100	3
Score	Count													
-100	0													
-50	2													
0	2													
+50	4													
+100	3													

Free text answers

The free text answers are pre-reviewed by the students' representatives.

What were the best aspects of the course

Satisfied students

Djupdyka i flera intressanta områden

The projects where fun and challenging, I learnt a lot

The projects really allowed us to understand the courses that were given.

The projects were thoughtfully crafted to teach new skills

Neutral students

I think I definetly learned a lot but I felt that more supervision from the teachers would definetly be helpful.

Dissatisfied students

What aspects of the course are most in need of improvement?

Satisfied students

Fler announsments på Canvas-student och att inte endast berätta viktig info på föreläsningar. Att endast skriva föreläsning i timeedit när det är föreläsning och inte inkludera redovisarna i detta (döp redovisningstiderna till ex seminarie istället)

The teachers had a really weird way to examine the course, felt like they laughed at us sometimes, it was unclear if you passed or not and felt like we never got any good constructive feedback

I think that it is not specified clearly that we have to expose our result with graphics for the presentation. Maybe add a guide line in the assignment to precise to be prepared to expose the results with graphical tools.

Robert could be less condescending during the examination

Neutral students

I think the workload was way too much in this course! I spent almost all of my time trying to finish the project.

Also the project extension within the same deadline was very annoying and it felt like the teachers were just trying to bully the students. I think the teachers could have at least pointed out that there was going to be an extension or just point out that the code should be flexible and keep in mind it should also be able to solve .. The way it was done here just felt completely unrespectful and unsensitive towards the students and the workload they already had.

Also Computer labs could have been a great help to not get stuck in a problem or actually being able to ask

questions.

Also the project presentations felt very unconstructive, just pointing out what people did wrong and not actually showing a correct result. In general the atmosphere during the presentations just felt very uncomfortable and one really felt on the spot.

Furthermore constantly asking during the lecture who doesn't know about a certain topic and expecting the people to actually raise their hands also felt very unsensitive towards the students.

In general I would say I learned a lot in this course I just don't think that this teaching style works.

Dissatisfied students