

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	202324	Group work 0 h
Study period the course was finished	HT_LP1	Laboratories 0 h
Programme	all	Time with supervisor 3 h
Registrated students	60	Self study time 169 h
Number answers and response rate	17 / 28 %	
Number answers from males	12	
Number answers from females	2	

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

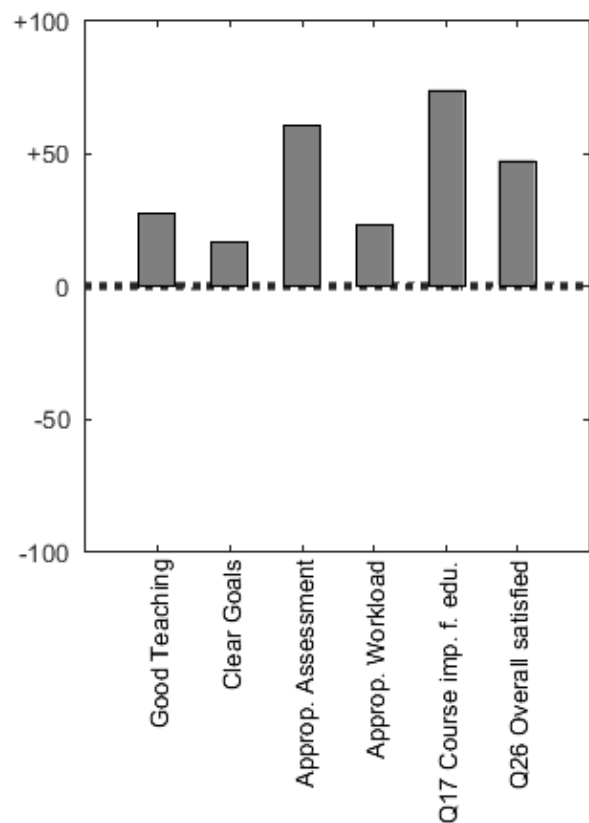
Part of teaching	Number	Share
0 %	1	6 %
20 %	0	0 %
40 %	0	0 %
60 %	1	6 %
80 %	5	29 %
100 %	10	59 %

CEQ-scales & special questions

Scale	CEQ-score	StdDev
Good Teaching	+27	60
Clear Goals and Standards	+16	55
Appropriate Assessment	+60	46
Appropriate Workload	+23	56
Generic Skills	+42	41

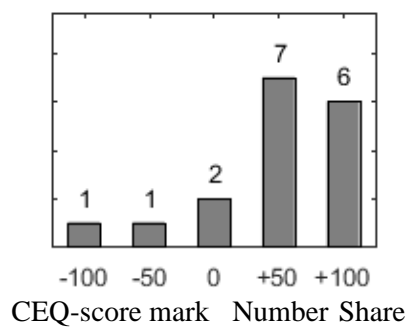
Special questions

The course seems important for my edu.	+74	50
Overall, I am satisfied with this course	+47	57



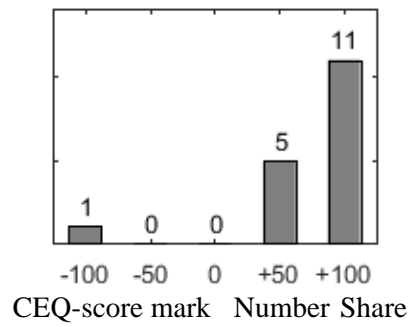
Distribution of the answers from question 26: "Overall, I am satisfied with this course"

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



Category	Number	Share
Dissatisfied (<0)	2	12 %
Neutral (0)	2	12 %
Satisfied (>0)	13	76 %
No answer	0	0 %

Mean of CEQ-score	+47
Standard deviation (StdDev)	57



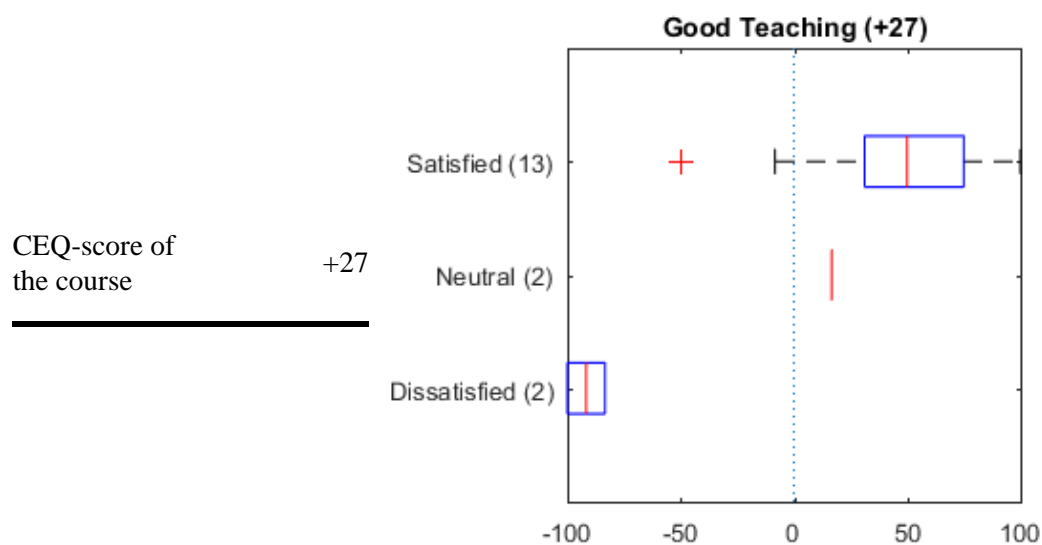
Category	Number	Share
-100	1	6 %
-50	0	0 %
+0	0	0 %
+50	5	29 %
+100	11	65 %

Mean of CEQ-score	+74
Standard deviation (StdDev)	50

Summary scales divided on satisfaction

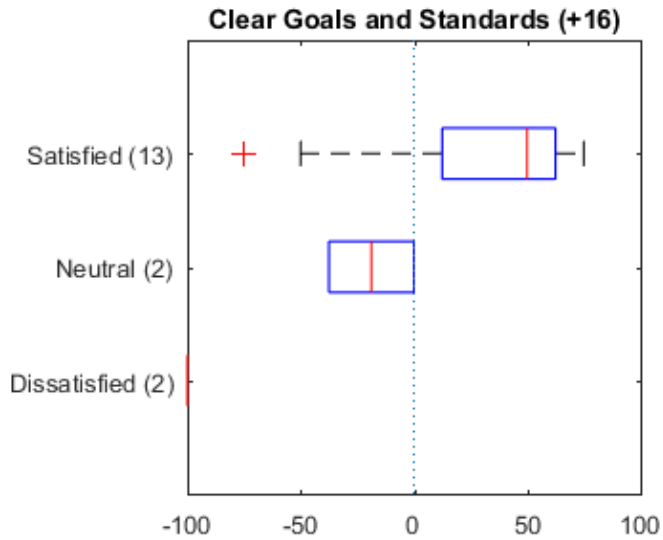
Statistical examination has not been done due to at least two groups consist of less than five students

Good Teaching



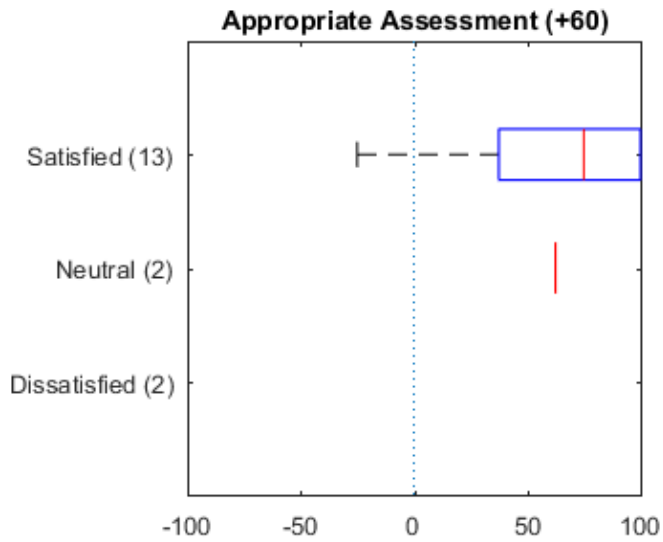
Clear Goals and Standards

CEQ-score of the course +16



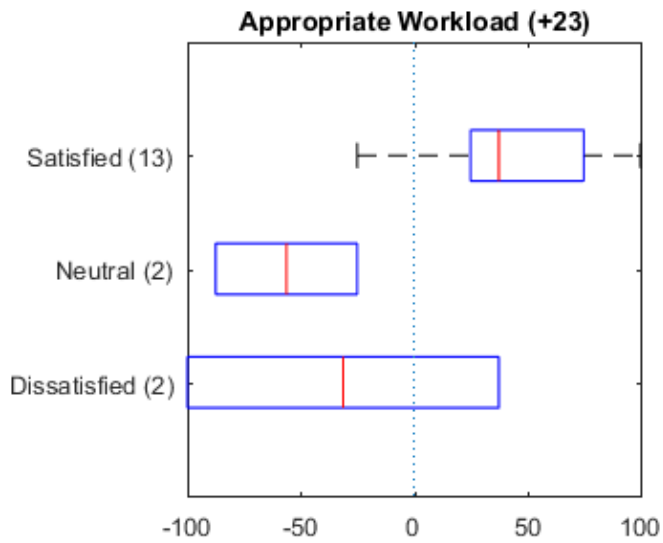
Appropriate Assessment

CEQ-score of the course +60

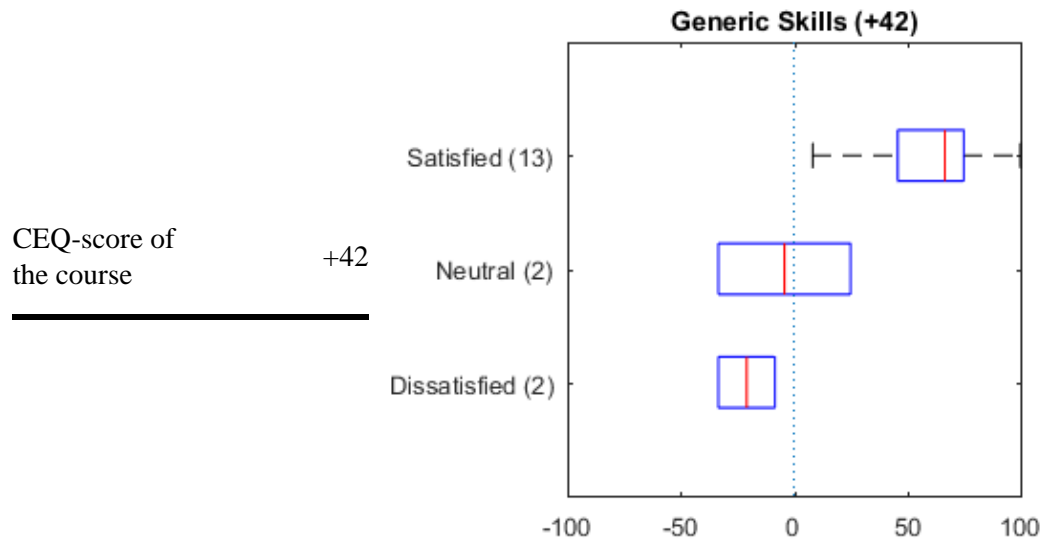


Appropriate Workload

CEQ-score of the course +23



Generic Skills



Answers to each question

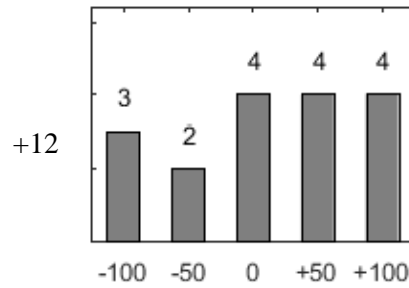
The questions in bold are reverse positive.

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

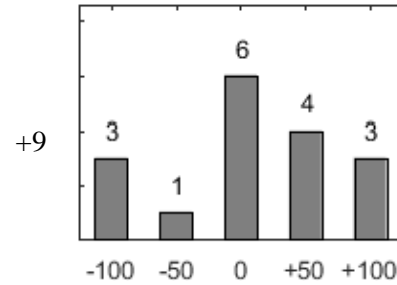
Good Teaching (+27)

Question	CEQ-score	Histogram
3. The teaching has motivated me to do my best	+32	
7. During the course I have received many valuable comments on my achievements	+26	
15. The teachers made a real effort to understand the problems and difficulties one might be having in this course	+15	

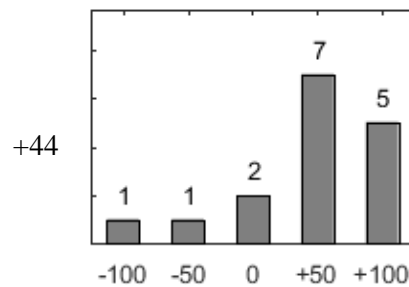
18. The teaching staff normally gave me helpful feedback on the progress of my work



19. My lecturers were extremely good at explaining things



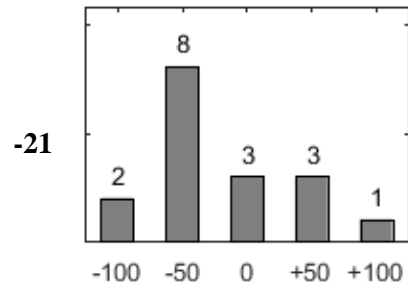
21. The teachers on the course worked hard to make the subject interesting



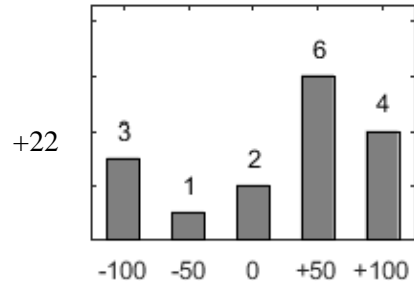
Clear Goals and Standards (+16)

Question	CEQ-score	Histogram												
1. It was easy to know the standard of work expected	+6	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>3</td> </tr> <tr> <td>-50</td> <td>3</td> </tr> <tr> <td>0</td> <td>1</td> </tr> <tr> <td>+50</td> <td>9</td> </tr> <tr> <td>+100</td> <td>1</td> </tr> </tbody> </table>	Score	Count	-100	3	-50	3	0	1	+50	9	+100	1
Score	Count													
-100	3													
-50	3													
0	1													
+50	9													
+100	1													
6. I usually had a clear idea of where I was going and what was expected of me in this course	+15	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>1</td> </tr> <tr> <td>-50</td> <td>4</td> </tr> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>+50</td> <td>7</td> </tr> <tr> <td>+100</td> <td>2</td> </tr> </tbody> </table>	Score	Count	-100	1	-50	4	0	3	+50	7	+100	2
Score	Count													
-100	1													
-50	4													
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+50	7													
+100	2													

13. It was often hard to discover what was expected of me in this course



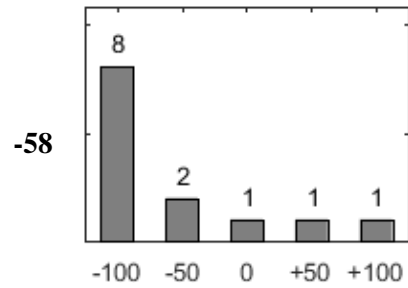
25. The teachers made it clear right from the start what they expected from the students



Appropriate Assessment (+60)

Question	CEQ-score	Histogram												
8. To do well in this course all you really needed was a good memory	-65	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>11</td> </tr> <tr> <td>-50</td> <td>2</td> </tr> <tr> <td>0</td> <td>2</td> </tr> <tr> <td>+50</td> <td>2</td> </tr> <tr> <td>+100</td> <td>0</td> </tr> </tbody> </table>	Score	Count	-100	11	-50	2	0	2	+50	2	+100	0
Score	Count													
-100	11													
-50	2													
0	2													
+50	2													
+100	0													
12. The teachers seemed more interested in testing what I had memorised than what I had understood	-67	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>10</td> </tr> <tr> <td>-50</td> <td>3</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>+50</td> <td>1</td> </tr> <tr> <td>+100</td> <td>1</td> </tr> </tbody> </table>	Score	Count	-100	10	-50	3	0	0	+50	1	+100	1
Score	Count													
-100	10													
-50	3													
0	0													
+50	1													
+100	1													
16. The assessment methods employed in this course required an in-depth understanding of the course content	+41	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>2</td> </tr> <tr> <td>-50</td> <td>1</td> </tr> <tr> <td>0</td> <td>1</td> </tr> <tr> <td>+50</td> <td>6</td> </tr> <tr> <td>+100</td> <td>6</td> </tr> </tbody> </table>	Score	Count	-100	2	-50	1	0	1	+50	6	+100	6
Score	Count													
-100	2													
-50	1													
0	1													
+50	6													
+100	6													

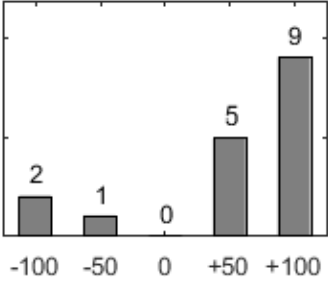
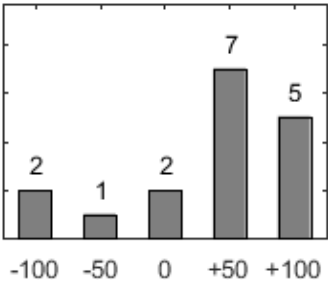
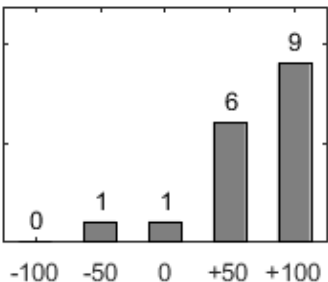
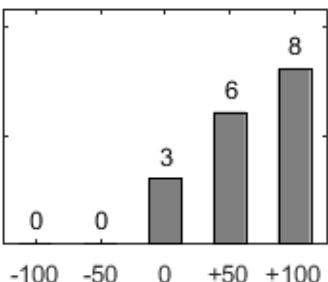
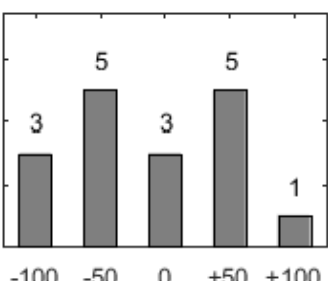
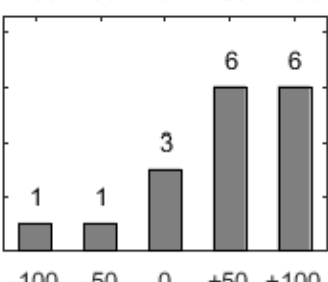
20. Too much of the assessment was just about facts



Appropriate Workload (+23)

Question	CEQ-score	Histogram												
4. The workload has been much too heavy	-18	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>4</td> </tr> <tr> <td>-50</td> <td>5</td> </tr> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>+50</td> <td>3</td> </tr> <tr> <td>+100</td> <td>2</td> </tr> </tbody> </table>	Score	Count	-100	4	-50	5	0	3	+50	3	+100	2
Score	Count													
-100	4													
-50	5													
0	3													
+50	3													
+100	2													
14. I was generally given enough time to understand the things I had to learn	+24	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>2</td> </tr> <tr> <td>-50</td> <td>2</td> </tr> <tr> <td>0</td> <td>2</td> </tr> <tr> <td>+50</td> <td>8</td> </tr> <tr> <td>+100</td> <td>3</td> </tr> </tbody> </table>	Score	Count	-100	2	-50	2	0	2	+50	8	+100	3
Score	Count													
-100	2													
-50	2													
0	2													
+50	8													
+100	3													
22. There was a lot of pressure on me as a student in this course	-15	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>3</td> </tr> <tr> <td>-50</td> <td>6</td> </tr> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>+50</td> <td>3</td> </tr> <tr> <td>+100</td> <td>2</td> </tr> </tbody> </table>	Score	Count	-100	3	-50	6	0	3	+50	3	+100	2
Score	Count													
-100	3													
-50	6													
0	3													
+50	3													
+100	2													
24. The sheer volume of work in this course made it impossible to comprehend everything thoroughly	-35	<table border="1"> <thead> <tr> <th>Score</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>6</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>2</td> </tr> </tbody> </table>	Score	Count	-100	6	-50	5	0	3	+50	1	+100	2
Score	Count													
-100	6													
-50	5													
0	3													
+50	1													
+100	2													

Generic Skills (+42)

Question	CEQ-score	Histogram												
2. The course has developed my problem-solving skills	+53	 <table border="1"> <caption>Data for Histogram 2</caption> <thead> <tr> <th>Score</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>2</td> </tr> <tr> <td>-50</td> <td>1</td> </tr> <tr> <td>0</td> <td>0</td> </tr> <tr> <td>+50</td> <td>5</td> </tr> <tr> <td>+100</td> <td>9</td> </tr> </tbody> </table>	Score	Frequency	-100	2	-50	1	0	0	+50	5	+100	9
Score	Frequency													
-100	2													
-50	1													
0	0													
+50	5													
+100	9													
5. The course has sharpened my analytic skills	+35	 <table border="1"> <caption>Data for Histogram 5</caption> <thead> <tr> <th>Score</th> <th>Frequency</th> </tr> </thead> <tbody> <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>7</td> </tr> <tr> <td>+100</td> <td>5</td> </tr> </tbody> </table>	Score	Frequency	-100	2	-50	1	0	2	+50	7	+100	5
Score	Frequency													
-100	2													
-50	1													
0	2													
+50	7													
+100	5													
9. The course helped me develop my ability to work in a group	+68	 <table border="1"> <caption>Data for Histogram 9</caption> <thead> <tr> <th>Score</th> <th>Frequency</th> </tr> </thead> <tbody> <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>6</td> </tr> <tr> <td>+100</td> <td>9</td> </tr> </tbody> </table>	Score	Frequency	-100	0	-50	1	0	1	+50	6	+100	9
Score	Frequency													
-100	0													
-50	1													
0	1													
+50	6													
+100	9													
10. The course has made me feel more confident about tackling new and unfamiliar problems	+65	 <table border="1"> <caption>Data for Histogram 10</caption> <thead> <tr> <th>Score</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>0</td> </tr> <tr> <td>-50</td> <td>0</td> </tr> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>+50</td> <td>6</td> </tr> <tr> <td>+100</td> <td>8</td> </tr> </tbody> </table>	Score	Frequency	-100	0	-50	0	0	3	+50	6	+100	8
Score	Frequency													
-100	0													
-50	0													
0	3													
+50	6													
+100	8													
11. The course has improved my skills in written communication	-12	 <table border="1"> <caption>Data for Histogram 11</caption> <thead> <tr> <th>Score</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>3</td> </tr> <tr> <td>-50</td> <td>5</td> </tr> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>+50</td> <td>5</td> </tr> <tr> <td>+100</td> <td>1</td> </tr> </tbody> </table>	Score	Frequency	-100	3	-50	5	0	3	+50	5	+100	1
Score	Frequency													
-100	3													
-50	5													
0	3													
+50	5													
+100	1													
23. The course has helped me to develop the ability to plan my work	+44	 <table border="1"> <caption>Data for Histogram 23</caption> <thead> <tr> <th>Score</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>-100</td> <td>1</td> </tr> <tr> <td>-50</td> <td>1</td> </tr> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>+50</td> <td>6</td> </tr> <tr> <td>+100</td> <td>6</td> </tr> </tbody> </table>	Score	Frequency	-100	1	-50	1	0	3	+50	6	+100	6
Score	Frequency													
-100	1													
-50	1													
0	3													
+50	6													
+100	6													

Free text answers

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

What were the best aspects of the course

Satisfied students

Alla projekt var roliga.

Väldigt kul att få göra större projekt och stöta på mer verklighetsbaserade problem. Tyckte också det var kul att hamna i grupp med folk med annan bakgrund än en själv. Var lärorikt

I really liked the projects. To build your first simple ANN from scratch, implement quasi-newton methods and to become somewhat familiar with MPI was great fun!

The form of examination was nice, and also nice to use python a bit more. A different style of course, nice to not only read book -> do excersise/labs -> write exam.

The teachers were also approachable and willing to help and answer questions. When the info that the deadlines were "soft" and projects only needed to be sent in a day before the seminar the course made more sense.

Lärorikt med problemlösning i grupp.

It covers different projects that have to be tackled using useful techniques

Föreläsarna var mycket engagerade och gjorde kursinnehållet intressant.

I feel like I have improved a lot with regards to coding and working together on a code. Learning about git was great!

Neutral students

Roliga projekt

Dissatisfied students

Första projekten var intressant och givande.

Good explanation when we actually received some. They are flexible with presentations

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

Satisfied students

Det ska vara tydligare vad som ska göras och vad som är valfritt i projekten.

Lite mer utförlig examination, man vill ju ändå få visa det man har gjort

To be frank, I have done some sort of AI implementation on the MNIST dataset at least three times already in previous courses. Maybe updating the problem to something more recent and interesting should be considered. I would personally want a more thorough description of Attack when training.

It could be nice to help randomize groups. The instructions to project 3 was somewhat hard to understand. Hard to balance the load in the groups.

Föreläsning krockade nästan alltid. Eftersom min specialisering inte innehåller så många kurser i lp1 delade jag detta problem med flera studenter. Som tur är förstod man det mesta materialet utifrån föreläsningsslides.

Vi hade en i gruppen som i princip bara gick på semenariumet. Det saknas incitament för att rapportera sådant beteende så vi lät personen i fråga vara med i vår grupp ändå. Resultatet är att personen blev godkänd i kursen utan att ha gjort nästan någonting.

The slides should be complemented with notes because sometimes they are not enough

Även om det är bra att öva på grupparbete så tyckte jag att fem personer per grupp var för många för att alla skulle få nåt att göra. Tre personer per grupp hade varit mer lagom.

The last project was extremely rushed. There was still 2 weeks left in the first half semester so even if it was nice ending early, it would have been great to have more than 5 days to do the final project.

Neutral students

Komplicerad till en grad att jag iaf inte har kunnat förstå så mycket. Tycker det hade varit bra om det var förklarat bättre hur labbarna skulle utföras.

Dissatisfied students

The projects lack any good written information to lean upon if you did not understand everything during the lecture.

For example first AI project. Please provide written notes on the principles for I had not encountered these concepts before which made me really nervous about the basics and unable to provide for the project.

Also please supply more conceptual instructions in the project descriptions.