LUND UNIVERSITY
Faculty of Science

Course Analysis for NUMN33 Numerical Methods for Partial Differential Equations, VT 2025

Course Information

Lecturers: Eskil Hansen, Robert Klöfkorn
Teaching assistants: None.
Number of students:
14 newly registered.
2 students answered the course evaluation.

Examination

Projects and oral examination: 11 students passed.

Final grades:
In all, 11 students, have got their final grade.
7 passed with distinction.
4 passed.

Course Evaluation

Summary of student's answers:

See attachment.

Teachers' comments:

The course is organized with lectures twice a week and supplemented with 3 homework projects throughout the course duration. The material presents a good mixture of theoretical background and practical application of Finite Element methods for elliptic partial differential equations.

Attendance during the lectures was very good, and the percetage of students finishing the project was satisfying.

Changes from the previous course realisation:

It was the first time the course was given.
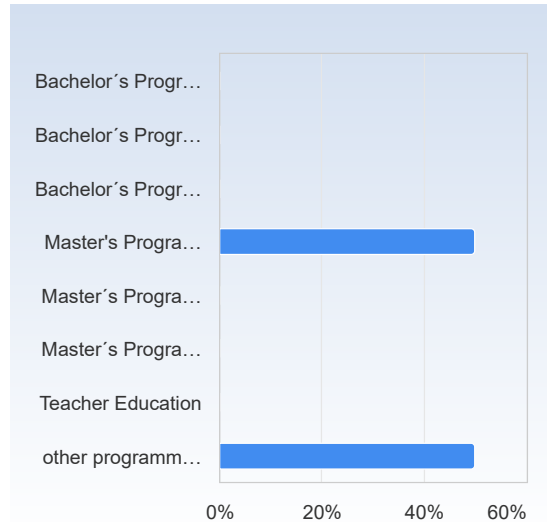
Suggestions for the next course realisation:

In the next realisation we try to give earlier feedback for the projects so that improvements can be included in the ongoing projects.

NUMN33VT25 Numerical Methods for Partial Differential Equations

Respondents: 16
Answer Count: 2
Answer Frequency: 12.50%

I have studied this course as part of

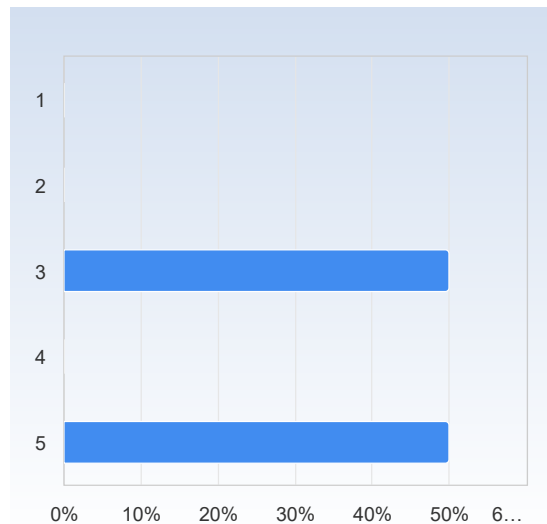| I have studied this course as part of	Number of responses
Bachelor´s Programme in Mathematics	0 (0.0%)
Bachelor´s Programme in Physics, Theoretical Physics, Astronomy	0 (0.0%)
Bachelor´s Programme, other specialization	0 (0.0%)
Master's Programme in Mathematics	1 (50.0%)
Master´s Programme in Mathematical Statistics	0 (0.0%)
Master´s Programme, other specialization	0 (0.0%)
Teacher Education	0 (0.0%)
other programme or as stand alone course	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
I have studied this course as part of	6.0	2.8

On the scale 1-5 select the option that best matches your opinion: 1= disagree completely → 3= partly agree → 5= agree completely

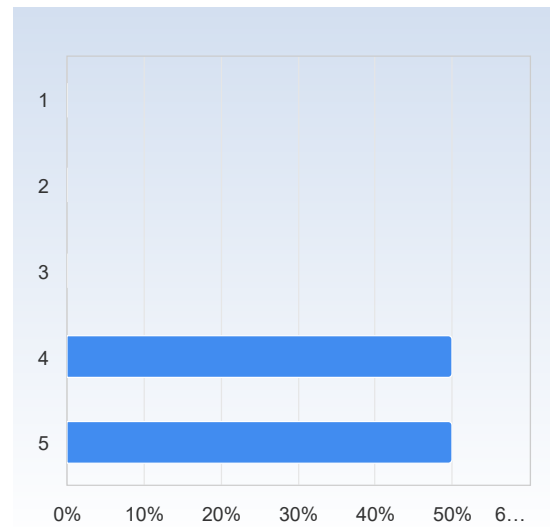### 2. My prior knowledge has been sufficient to assimilate the contents of this course.

2. My prior knowledge has been sufficient to assimilate the contents of this course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (50.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

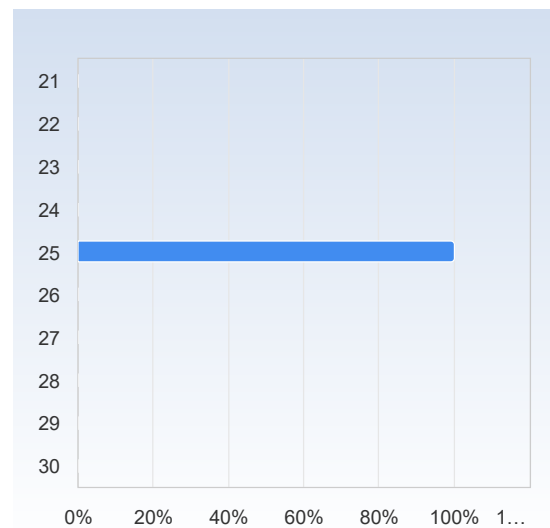|	Mean	Standard Deviation
2. My prior knowledge has been sufficient to assimilate the contents of this course.	4.0	1.4

3. I have participated actively in the course.

3. I have participated actively in the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (50.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
3. I have participated actively in the course.	4.5	0.7

Average number of hours spent in total on the course per week (including scheduled activities):

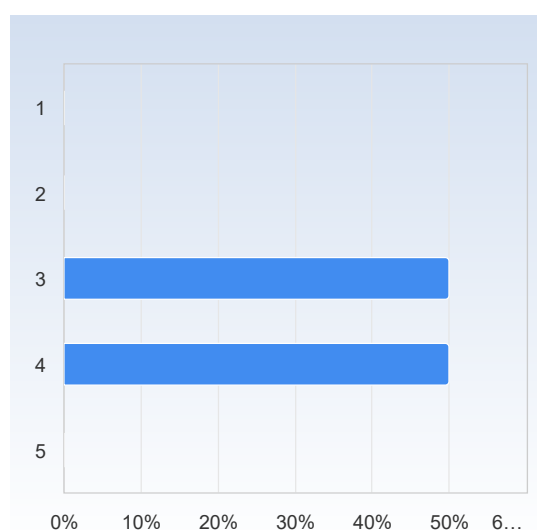| Average number of hours spent in total on the course per week (including scheduled activities):	Number of responses
21	0 (0.0%)
22	0 (0.0%)
23	0 (0.0%)
24	0 (0.0%)
25	1 (100.0%)
26	0 (0.0%)
27	0 (0.0%)
28	0 (0.0%)
29	0 (0.0%)
30	0 (0.0%)
Total	1 (100.0%)

	Mean	Standard Deviation
Average number of hours spent in total on the course per week (including scheduled activities):	25.0	0.0

The course in general

On the scale 1-5 select the option that best matches your opinion: 1= disagree completely → 3= partly agree → 5= agree completely

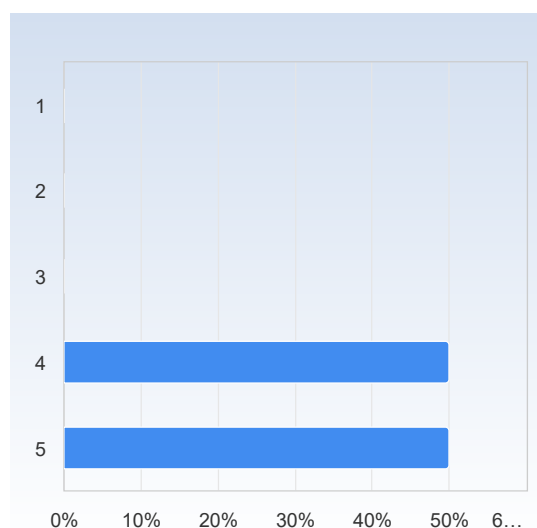**The way the course was taught and organised suited me.**

The way the course was taught and organised suited me.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (50.0%)
4	1 (50.0%)
5	0 (0.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The way the course was taught and organised suited me.	3.5	0.7

The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.
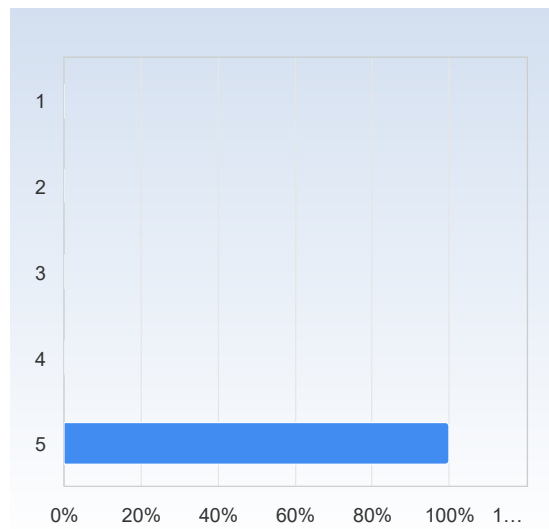
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (50.0%)
5	1 (50.0%)
Total	2 (100.0%)

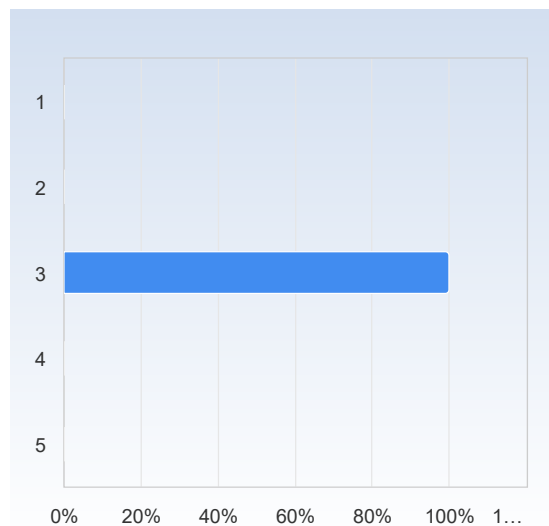|	Mean	Standard Deviation
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	4.5	0.7

The lectures were valuable for my learning.

The lectures were valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	2 (100.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The lectures were valuable for my learning.	5.0	0.0

The seminars were valuable for my learning.

The seminars were valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (100.0%)
4	0 (0.0%)
5	0 (0.0%)
Total	1 (100.0%)

	Mean	Standard Deviation
The seminars were valuable for my learning.	3.0	0.0

Studying on my own was valuable for my learning.

Studying on my own was valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	2 (100.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
Studying on my own was valuable for my learning.	5.0	0.0

The course literature/material was a valuable learning resource.

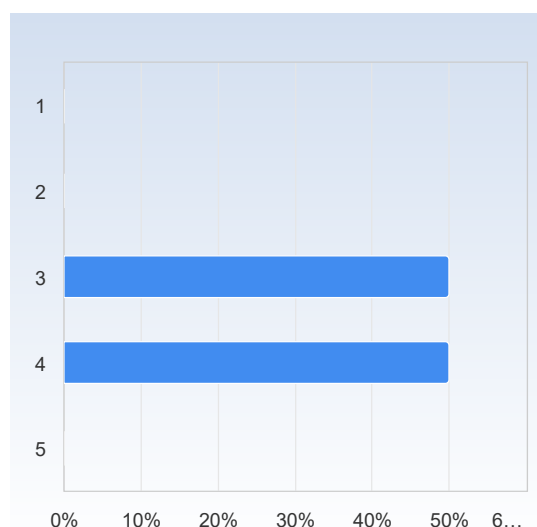| The course literature/material was a valuable learning resource.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (100.0%)
5	0 (0.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course literature/material was a valuable learning resource.	4.0	0.0

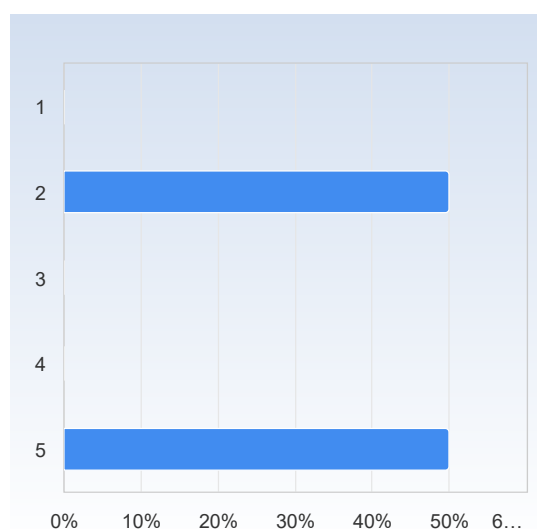## The information I received before the course start was satisfactory.

The information I received before the course start was satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (50.0%)
4	1 (50.0%)
5	0 (0.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The information I received before the course start was satisfactory.	3.5	0.7

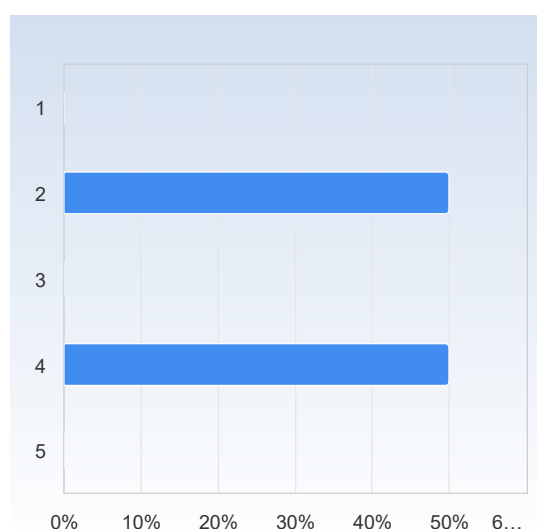## The communication with the teaching staff during the course was good.

The communication with the teaching staff during the course was good.	Number of responses
1	0 (0.0%)
2	1 (50.0%)
3	0 (0.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The communication with the teaching staff during the course was good.	3.5	2.1

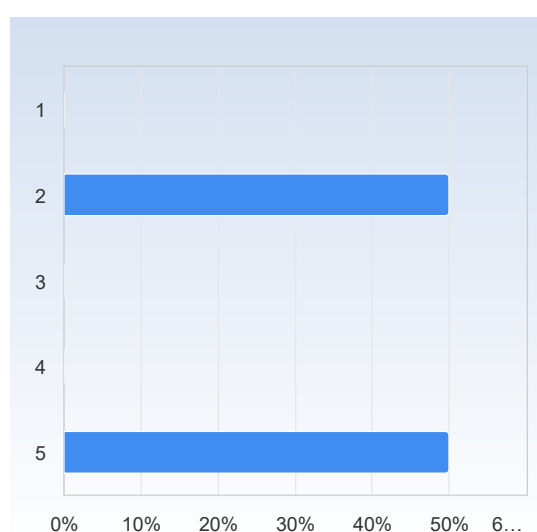**It was clear throughout the course what was expected of me.**

It was clear throughout the course what was expected of me.	Number of responses
1	0 (0.0%)
2	1 (50.0%)
3	0 (0.0%)
4	1 (50.0%)
5	0 (0.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
It was clear throughout the course what was expected of me.	3.0	1.4

I have received valuable feedback from my teacher/teachers during the course.

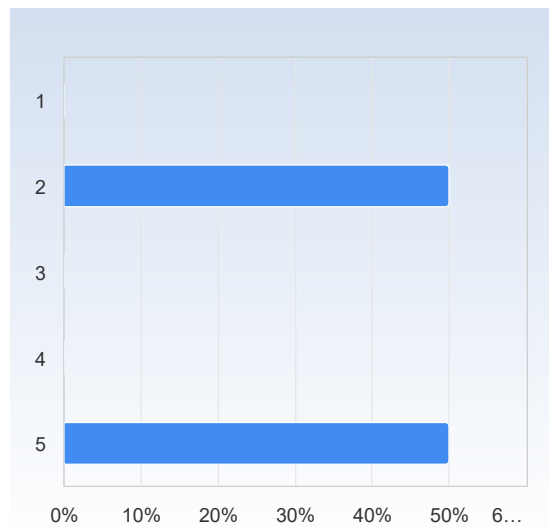| I have received valuable feedback from my teacher /teachers during the course.	Number of responses
1	0 (0.0%)
2	1 (50.0%)
3	0 (0.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
I have received valuable feedback from my teacher/teachers during the course.	3.5	2.1

The course had a reasonable workload.

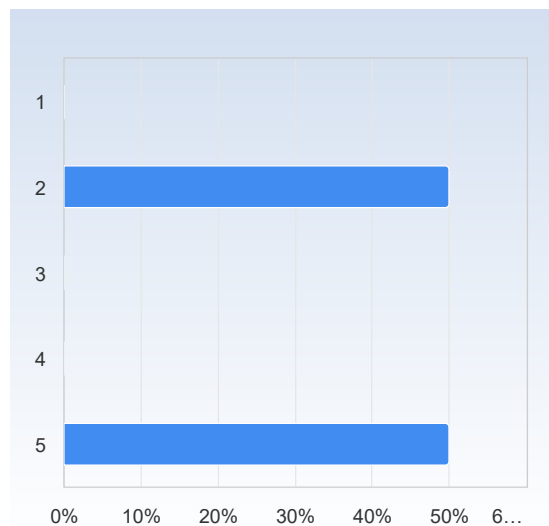| The course had a reasonable workload.	Number of responses
1	0 (0.0%)
2	1 (50.0%)
3	0 (0.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course had a reasonable workload.	3.5	2.1

The workload was evenly distributed throughout the course.

The workload was evenly distributed throughout the course.	Number of responses
1	0 (0.0%)
2	1 (50.0%)
3	0 (0.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The workload was evenly distributed throughout the course.	3.5	2.1

The examination matched the contents and level of the course.

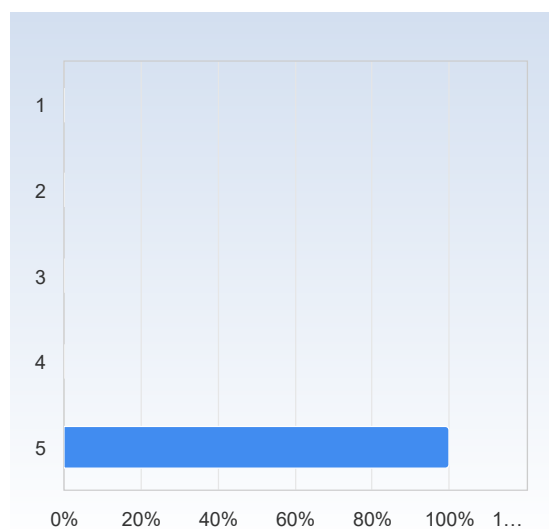| The examination matched the contents and level of the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	2 (100.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The examination matched the contents and level of the course.	5.0	0.0

Overall, I am satisfied with the course.

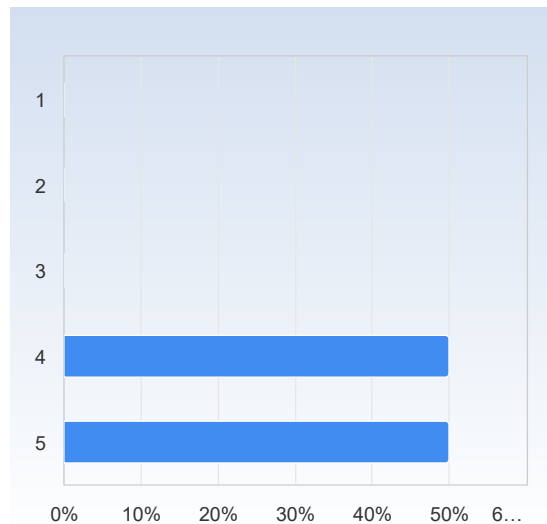| Overall, I am satisfied with the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	2 (100.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
Overall, I am satisfied with the course.	5.0	0.0

On the development of generic skills

On a scale 1-5 select the option that best matches your opinion: 1= disagree completely → 3= partly agree → 5= agree completely

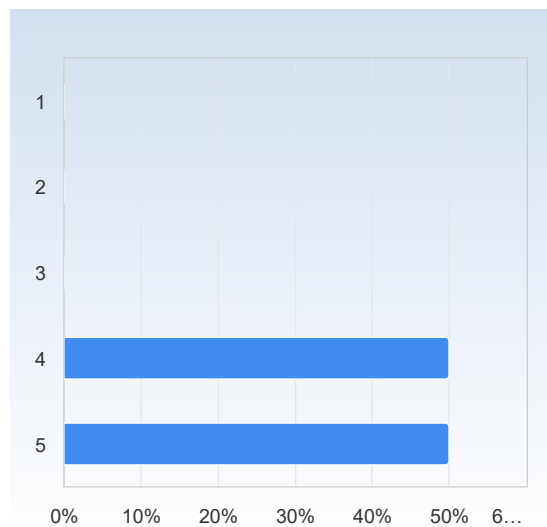### The course has increased my ability to read a mathematical text.

The course has increased my ability to read a mathematical text.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (50.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course has increased my ability to read a mathematical text.	4.5	0.7

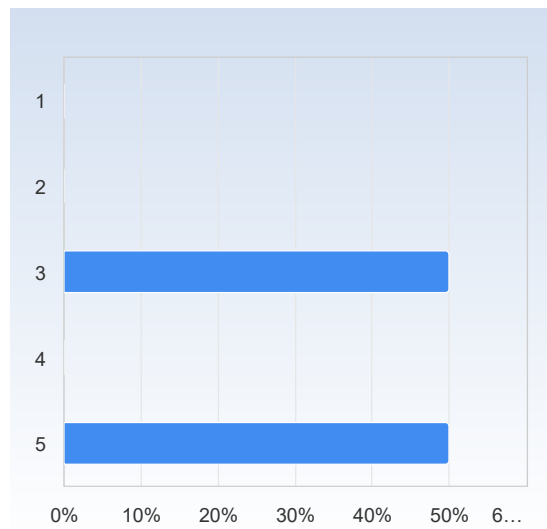### The course has increased my ability to communicate the subject in writing.

The course has increased my ability to communicate the subject in writing.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (50.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course has increased my ability to communicate the subject in writing.	4.5	0.7

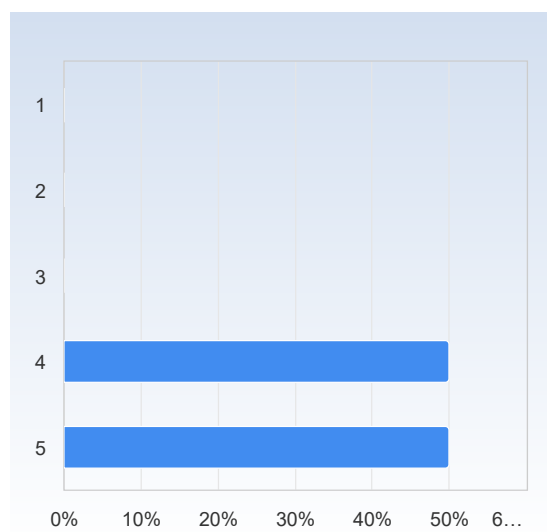## The course has increased my ability to communicate the subject orally.

The course has increased my ability to communicate the subject orally.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (50.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course has increased my ability to communicate the subject orally.	4.0	1.4

The course has increased my ability to cooperate.

The course has increased my ability to cooperate.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (50.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course has increased my ability to cooperate.	4.5	0.7

The course has increased my ability to search and process information.

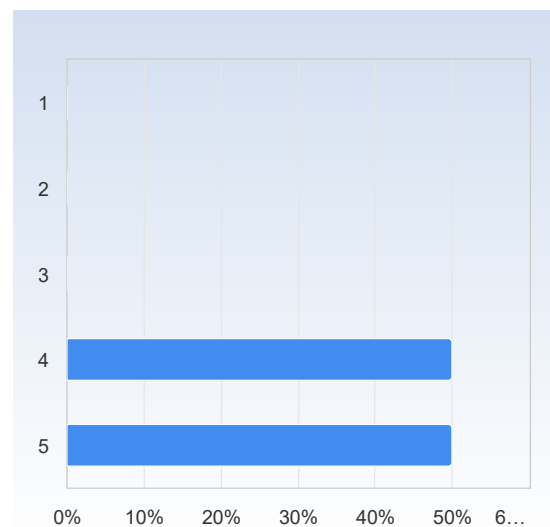| The course has increased my ability to search and process information.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (50.0%)
4	0 (0.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course has increased my ability to search and process information.	4.0	1.4

The course has increased my ability to analyze and solve problems.

The course has increased my ability to analyze and solve problems.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (50.0%)
5	1 (50.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
The course has increased my ability to analyze and solve problems.	4.5	0.7

As a result of this course, I feel confident about tackling unfamiliar problems.

As a result of this course, I feel confident about tackling unfamiliar problems.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (50.0%)
4	1 (50.0%)
5	0 (0.0%)
Total	2 (100.0%)

	Mean	Standard Deviation
As a result of this course, I feel confident about tackling unfamiliar problems.	3.5	0.7

What did you appreciate most with the course?

What did you appreciate most with the course?
The course was well balanced with theory and coding part. The workload was distributed very well.
Projects were fun and designed to cover the course reasonably completely

What do you think should be improved?

What do you think should be improved?
It would be useful to have a seminar / q&a where we can ask some questions if we get stuck in some codes or if we have some doubts about the theory.
Theory sections quickly went into too much detail. Being too specific without holding the student's hand w.r.t the big picture. Example - for which problems do we prove uniqueness, why not for other problems? We learn about quite specific results, how should we think of them in relation to other cases not covered by the assumptions we relied on? In this course much more so than in others, it was a case of having to read and understand the lectures long after they were held. To a much larger degree than other courses I have taken. That could just have been me. Project tasks could have stated their expectations a lot more clearly. For learning we would also prefer if we had feedback on project 1 before handing in project 2. In general, project 3 was too long. Clarifying expectations would be one way to make it better without being shorter.

Have you during this course experienced course literature, staff or teaching methods to be discriminatory in any way (gender, ethnicity, etc.)?

Have you during this course experienced course literature, staff or teaching methods to be discriminatory in any way (gender, ethnicity, etc.)?
No.
No