



LUND UNIVERSITY
Faculty of Science

Centre for Mathematical Sciences
Division of Mathematics and Numerical Analysis

Course Analysis for MATA04 Mathematics for scientists 2, Autumn 2024

Course Information

Lecturer: Evgeniy Lokharu

Teaching assistants: Stefano Böhmer

Number of students: 14

3 students answered the course evaluation, 10 of them are enrolled on program name.

Examination

Project: 14 students passed.

Written examination: 13 students passed.

- Ordinary examination 15/01 2025: 11 students participated and 4 of them passed.
- Resit examination 01/02 2025: 2 students participated and 1 of them passed.

Final grades:

1 passed with distinction.

12 passed.

Course Evaluation

Summary of student's answers:

7 students answered the questionnaire with a very positive feedback. Students appreciated the teaching style both for lectures and seminars. They also provided some constructive feedback: to make more intermediate tests. They also mentioned that the exam was a bit heavy.

Teachers' comments:

I have a good feeling about how the course went. Moreover, we discussed how to improve the course in a focus group and will make the following changes for the future iterations (see below).

Changes from the previous course realisation:

No significant changes.

Suggestions for the next course realisation:

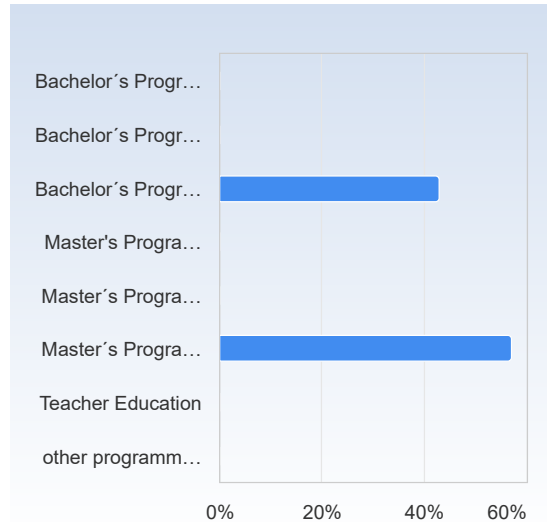
- to shift lecture and seminars, so the seminar comes day after the lecture. This way students can work more on the problems in advance.
- to add a mandatory midterm assignment (4pts) corresponding to the linear algebra module. This will make the final exam lighter.

MATA04HT24 Mathematics for Scientists 2

Respondents: 19
Answer Count: 7
Answer Frequency: 36.84%

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	3 (42.9%)
Master's Programme in Mathematics	0 (0.0%)
Master's Programme in Mathematical Statistics	0 (0.0%)
Master's Programme, other specialization	4 (57.1%)
Teacher Education	0 (0.0%)
other programme or as stand alone course	0 (0.0%)
Total	7 (100.0%)

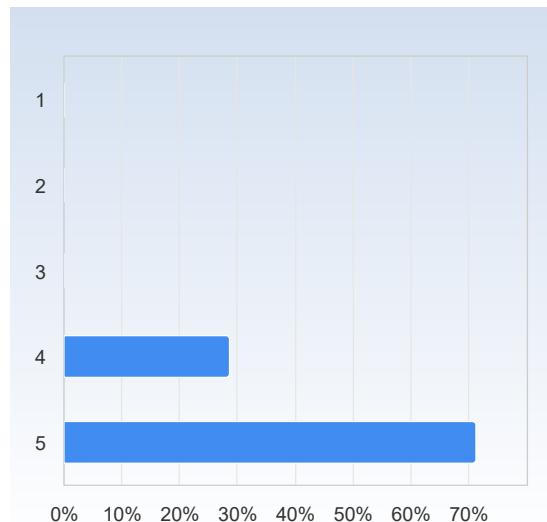


	Mean	Standard Deviation
I have studied this course as part of	4.7	1.6

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.

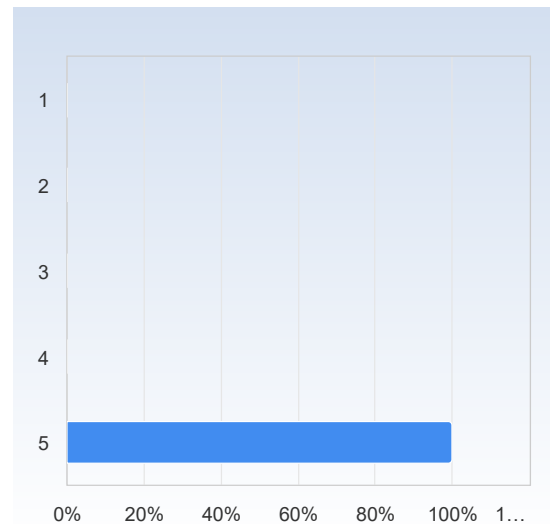
2. My prior knowledge has been sufficient to assimilate the contents of this course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (28.6%)
5	5 (71.4%)
Total	7 (100.0%)



	Mean	Standard Deviation
2. My prior knowledge has been sufficient to assimilate the contents of this course.	4.7	0.5

3. I have participated actively in the course.

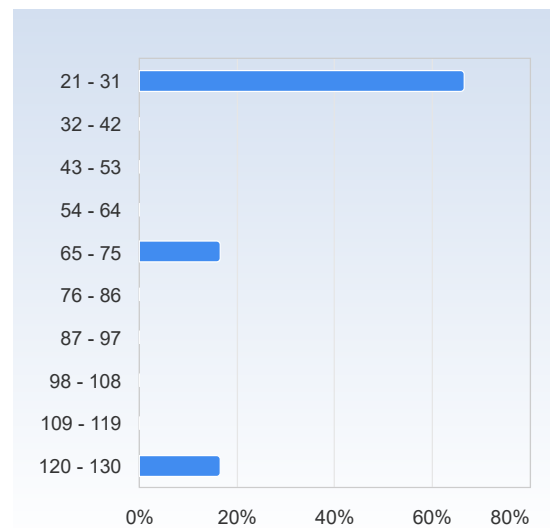
3. I have participated actively in the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	7 (100.0%)
Total	7 (100.0%)



	Mean	Standard Deviation
3. I have participated actively in the course.	5.0	0.0

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 - 31	4 (66.7%)
32 - 42	0 (0.0%)
43 - 53	0 (0.0%)
54 - 64	0 (0.0%)
65 - 75	1 (16.7%)
76 - 86	0 (0.0%)
87 - 97	0 (0.0%)
98 - 108	0 (0.0%)
109 - 119	0 (0.0%)
120 - 130	1 (16.7%)
Total	6 (100.0%)



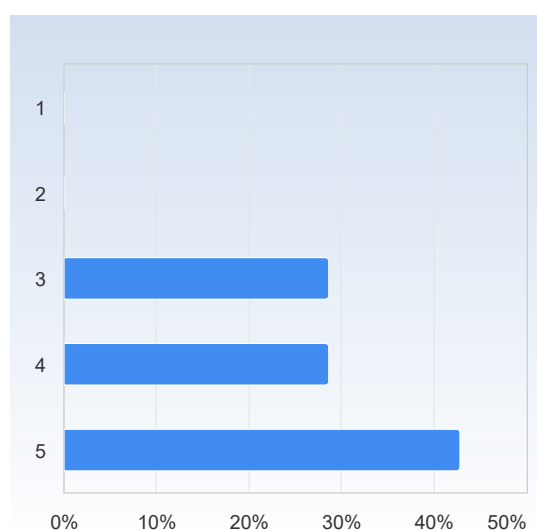
	Mean	Standard Deviation
Average number of hours spent in total on the course per week (including scheduled activities):	49.3	41.7

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.

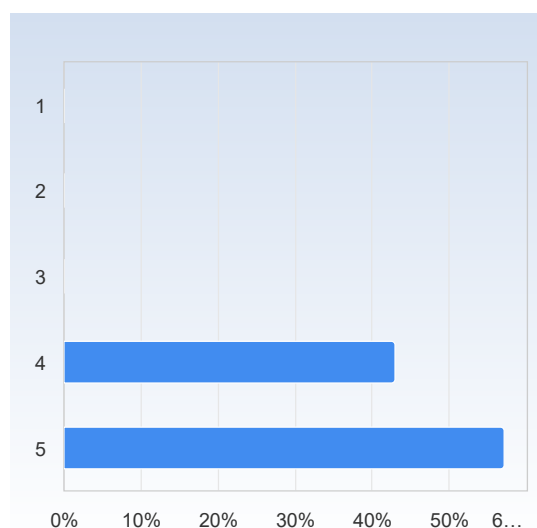
The way the course was taught and organised suited me.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	2 (28.6%)
5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
The way the course was taught and organised suited me.	4.1	0.9

The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.

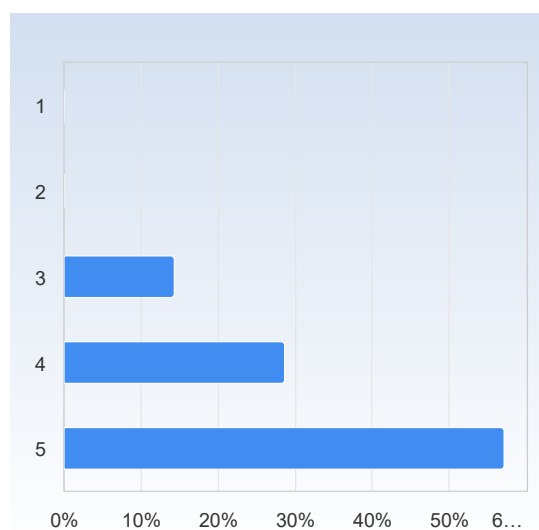
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (42.9%)
5	4 (57.1%)
Total	7 (100.0%)



	Mean	Standard Deviation
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	4.6	0.5

The lectures were valuable for my learning.

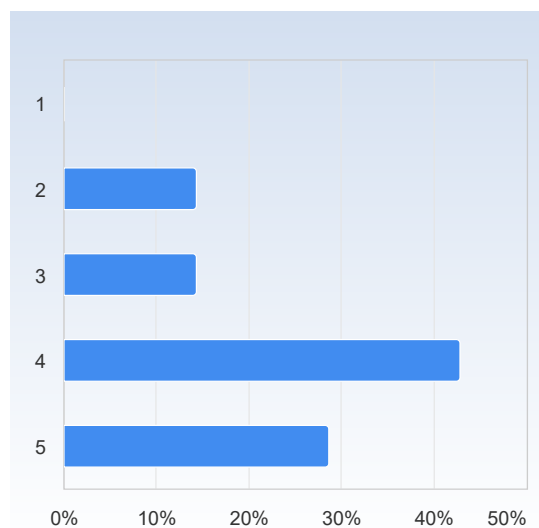
The lectures were valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (14.3%)
4	2 (28.6%)
5	4 (57.1%)
Total	7 (100.0%)



	Mean	Standard Deviation
The lectures were valuable for my learning.	4.4	0.8

The seminars were valuable for my learning.

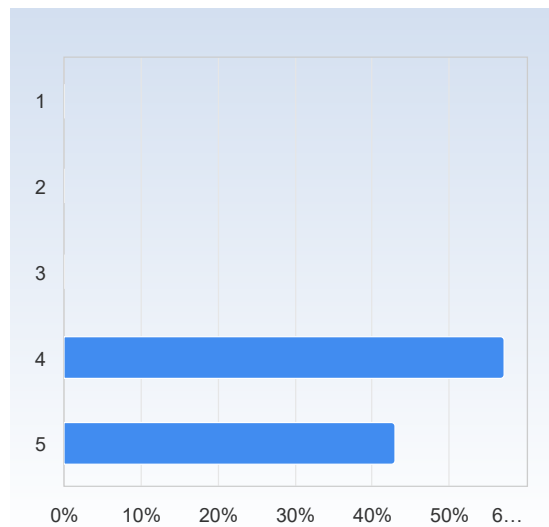
The seminars were valuable for my learning.	Number of responses
1	0 (0.0%)
2	1 (14.3%)
3	1 (14.3%)
4	3 (42.9%)
5	2 (28.6%)
Total	7 (100.0%)



	Mean	Standard Deviation
The seminars were valuable for my learning.	3.9	1.1

Studying on my own was valuable for my learning.

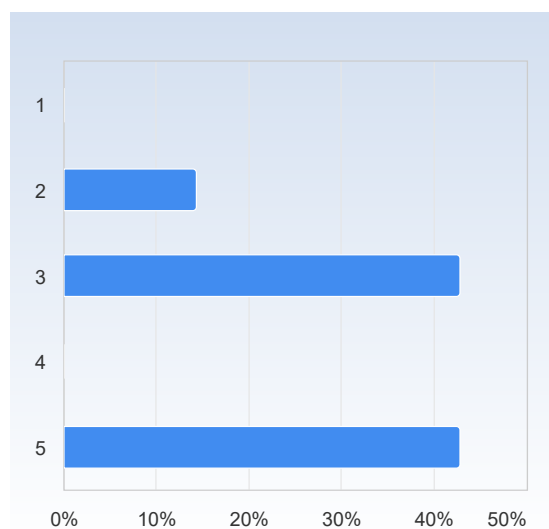
Studying on my own was valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	4 (57.1%)
5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
Studying on my own was valuable for my learning.	4.4	0.5

The course literature/material was a valuable learning resource.

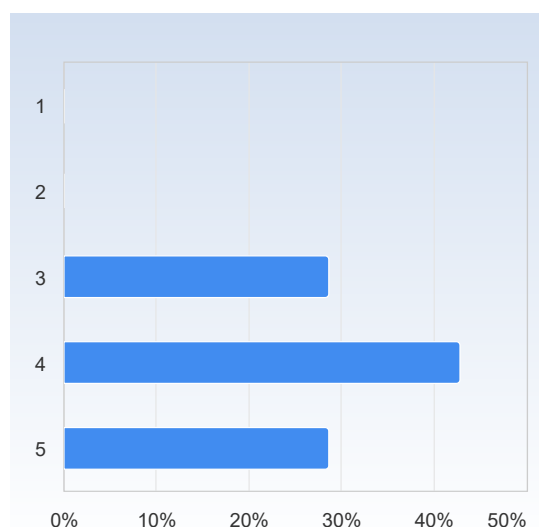
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Total	7 (100.0%)



	Mean	Standard Deviation
The course literature/material was a valuable learning resource.	3.7	1.3

The information I received before the course start was satisfactory.

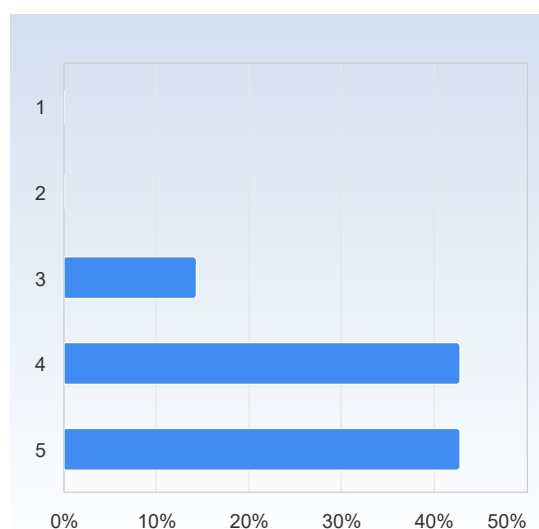
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Total	7 (100.0%)



	Mean	Standard Deviation
The information I received before the course start was satisfactory.	4.0	0.8

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

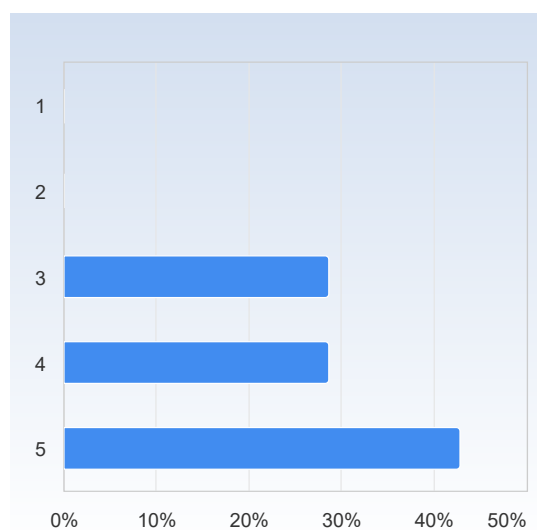
The communication with the teaching staff during the course was good.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (14.3%)
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5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
The communication with the teaching staff during the course was good.	4.3	0.8

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

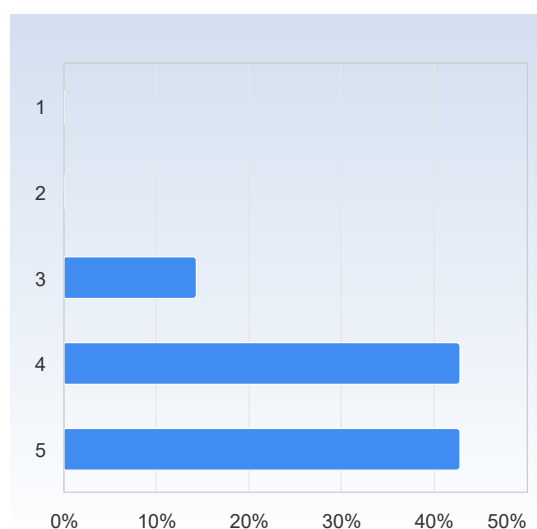
It was clear throughout the course what was expected of me.	Number of responses
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4	2 (28.6%)
5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
It was clear throughout the course what was expected of me.	4.1	0.9

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

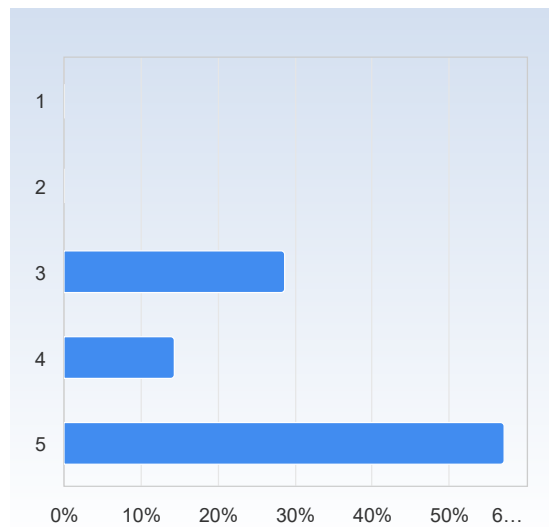
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	Mean	Standard Deviation
I have received valuable feedback from my teacher/teachers during the course.	4.3	0.8

The course had a reasonable workload.

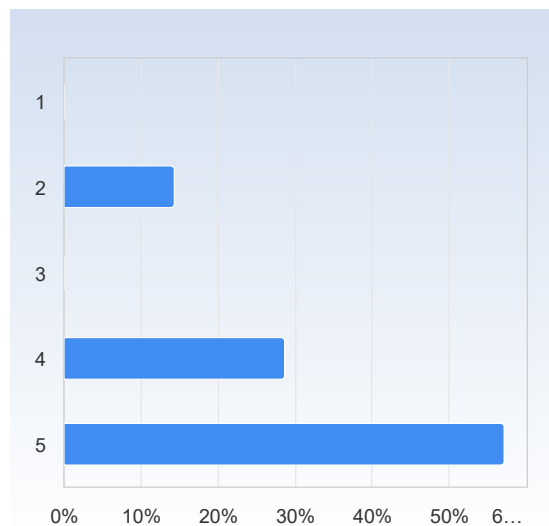
The course had a reasonable workload.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	1 (14.3%)
5	4 (57.1%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course had a reasonable workload.	4.3	1.0

The workload was evenly distributed throughout the course.

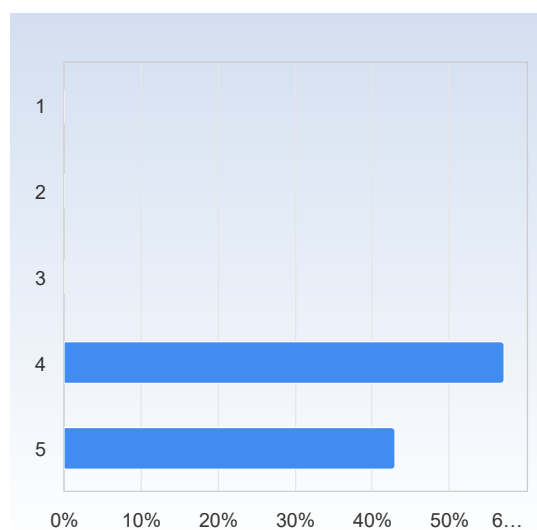
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Total	7 (100.0%)



	Mean	Standard Deviation
The workload was evenly distributed throughout the course.	4.3	1.1

The examination matched the contents and level of the course.

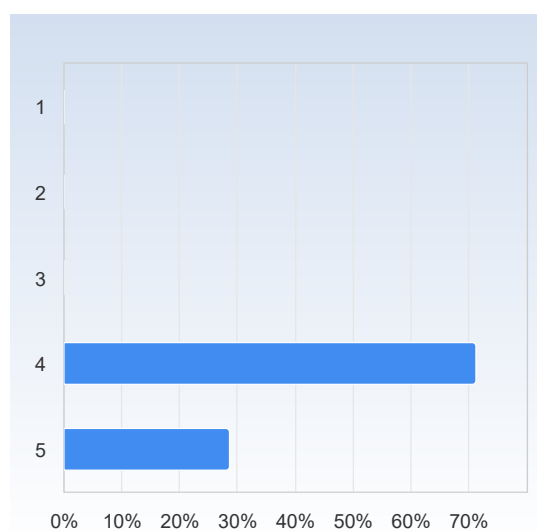
The examination matched the contents and level of the course.	Number of responses
1	0 (0.0%)
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Total	7 (100.0%)



	Mean	Standard Deviation
The examination matched the contents and level of the course.	4.4	0.5

Overall, I am satisfied with the course.

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1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	5 (71.4%)
5	2 (28.6%)
Total	7 (100.0%)



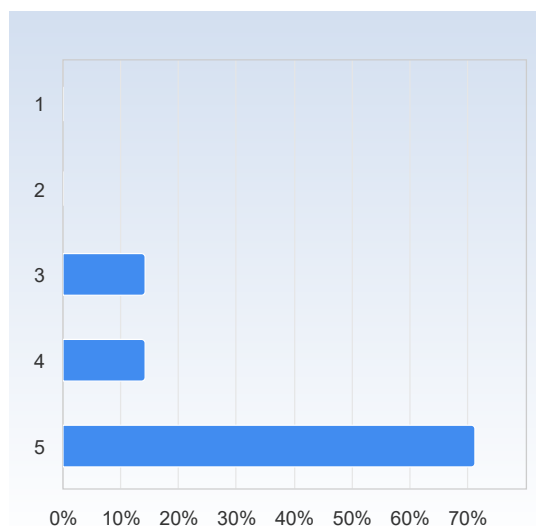
	Mean	Standard Deviation
Overall, I am satisfied with the course.	4.3	0.5

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.

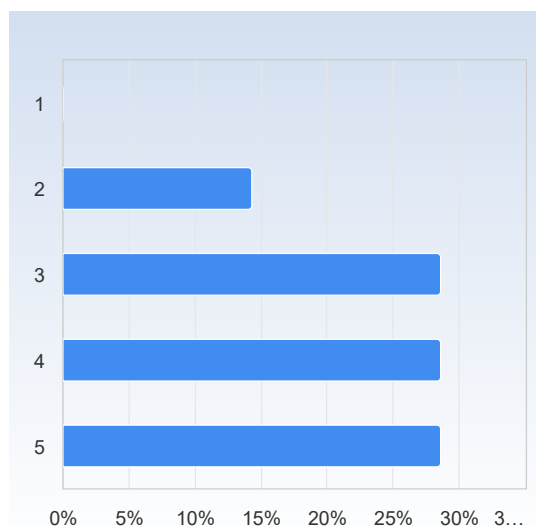
The course has increased my ability to read a mathematical text.	Number of responses
1	0 (0.0%)
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3	1 (14.3%)
4	1 (14.3%)
5	5 (71.4%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to read a mathematical text.	4.6	0.8

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

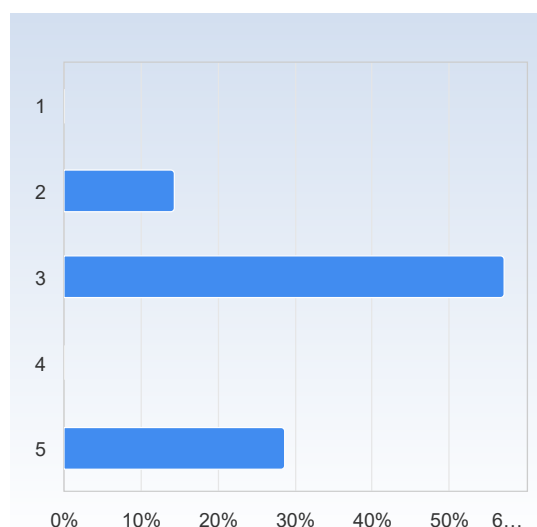
The course has increased my ability to communicate the subject in writing.	Number of responses
1	0 (0.0%)
2	1 (14.3%)
3	2 (28.6%)
4	2 (28.6%)
5	2 (28.6%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject in writing.	3.7	1.1

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

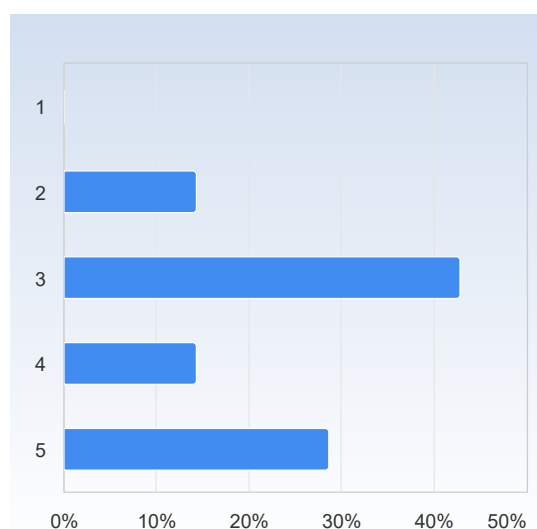
The course has increased my ability to communicate the subject orally.	Number of responses
1	0 (0.0%)
2	1 (14.3%)
3	4 (57.1%)
4	0 (0.0%)
5	2 (28.6%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject orally.	3.4	1.1

The course has increased my ability to cooperate.

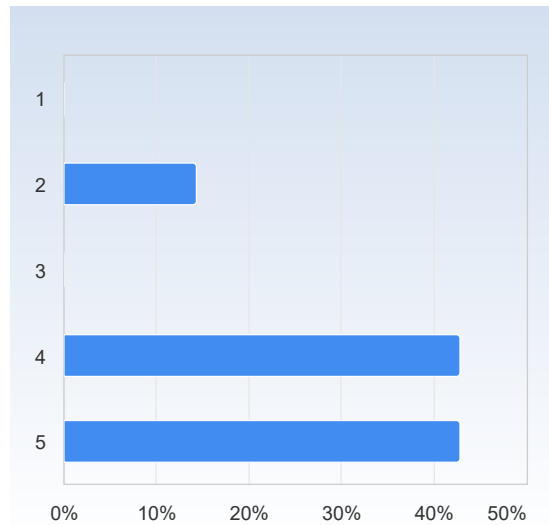
The course has increased my ability to cooperate.	Number of responses
1	0 (0.0%)
2	1 (14.3%)
3	3 (42.9%)
4	1 (14.3%)
5	2 (28.6%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to cooperate.	3.6	1.1

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

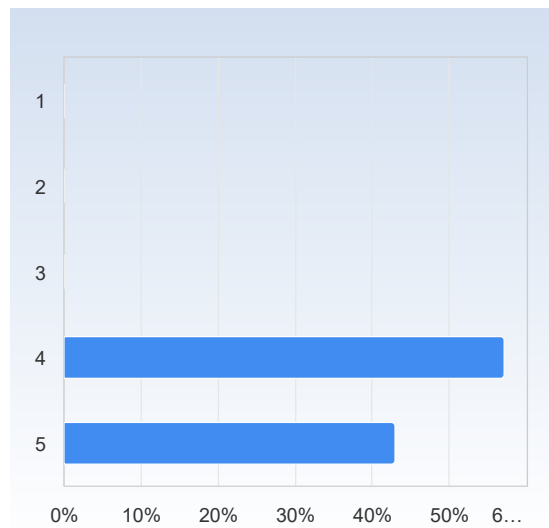
The course has increased my ability to search and process information.	Number of responses
1	0 (0.0%)
2	1 (14.3%)
3	0 (0.0%)
4	3 (42.9%)
5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to search and process information.	4.1	1.1

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

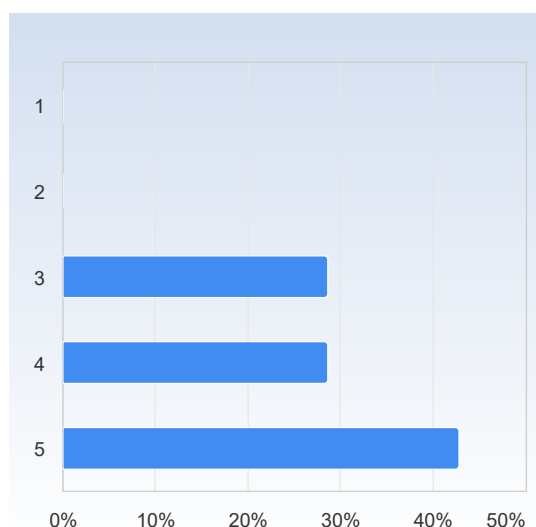
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5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to analyze and solve problems.	4.4	0.5

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

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1	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
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5	3 (42.9%)
Total	7 (100.0%)



	Mean	Standard Deviation
As a result of this course, I feel confident about tackling unfamiliar problems.	4.1	0.9

What did you appreciate most with the course?

What did you appreciate most with the course?

The classroom had a very pleasant atmosphere and the professor was very accommodating and respectful about all questions. The pace, while intense was quite reasonable, albeit quite stressful in the beginning. The material is quite difficult to penetrate and the fast pace in the beginning of the course made it easy to fall behind. We were however given seminars where we could ask plenty of questions. Never during the course did I feel ridiculed for asking a 'dumb' question (which, sadly, it's quite rare at LU) and the professor and TAs deserve props for that. We were also often given good examples for why specific methods were useful which made it very clear to me why I was meant to take this course. The amount of examples given during lectures was also great because I feel that the context is most important to learn the application. The schedule was also very nice and could even use a few more seminars.

The openness and willingness of the teacher and the tutors to help, explain and advise on the topics, open questions, materials, etc.

Seminars with Steffano and the quality of the lectures

Everything

What do you think should be improved?

What do you think should be improved?

What about more regular smaller tests on the material (for example a graded rehearsal every second week) to reduce the workload and pressure ahead of the exam in the very end?

Also, I feel the lectures could have been more clear why we are doing what we were doing, what exactly we are learning it for, and what we can do with it. Right from the start of every lecture. So in the beginning of every lecture, to say something like: Today we do this. Where are we in a bigger picture? What can we use this for exactly. And only then start talking about the content. It was felt like we were merely following the chapters but motivating each topic/method could have been done a little bit stronger! :)

Often, the mathematical communication was a little bit above our level. Some methods and proofs which seem obvious or natural to the teachers are very foreign and hard to grasp for us non-mathematicians. And while questions were welcome sometimes we were not able to actually communicate what we didn't understand. The book was also often very difficult to understand and the TAs actually called it very bad which is not ideal for a course book. We were also, sometimes, (unfairly) treated like we were mathematicians ourselves which put a slightly unreasonable load on us. We need to take this course to learn how to communicate mathematically and solve problems, not memorize the unit circle and standard integrals. This was very clear in the first course which is why we were given some formulas so that even if the memory gave in we still had a chance to solve the problem. I did find many instances on the exam where I couldn't solve the problem quickly simply because I couldn't remember a key point and while this is the nature of an exam it would increase the pass rate while not diminishing the knowledge to have a few formulas, in real life we always have access to these things after all. The exam also felt a little bit too computationally heavy (though this might be a mistake on my part) but it was very hard to finish in the allotted time. The quality and helpfulness of the seminars also varied heavily between the two TAs and the seminars were very important for learning. A suggestion is to maybe introduce SI-exercises for a little bit of extra support to the students and more opportunities for learning from more knowledgeable peers. The programming project also felt very unneeded and if you had no prior knowledge it was almost impossible to finish in a reasonable time. To make this more useful, a few seminars with explanations and examples would not only be helpful but also show why we need to know programming and how useful it is. Now, it just felt like an extra thing thrown in because it had to be there but it has so much potential. Finally, I would like to suggest to maybe introduce 'duggor' to help people keep up with the course and perhaps lighten the load of the exam.

Nothing

Less questions on the exam or separate it into two smaller exams (not making mistakes during 5h of intense computations is close to impossible). 5h was enough for 9 exercises without time to double check the answers. The course book works but a better one would be appreciated.

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

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No. It was very pleasant.

No, everyone was super nice

Not discrimination in any way. Sometimes a TA treated us a bit like middle school children and not adults but this was NOT discrimination, just a little bit irritating as it gave a very slightly patronising experience.

Good teacher, good seminar leader, good course literature author