



LUND
UNIVERSITY

Centre for Mathematical Sciences
Mathematics, Faculty of Science

Centre for Mathematical Sciences
Division of Mathematics and Numerical Analysis

Course Analysis for MATM35 Number Theory, Autumn 2022

Course Information

Lecturer: Gustavo Jasso

Teaching assistants: None.

Number of students: 29 newly registered and 2 re-registered.

9 students answered the course evaluation, 4 of them are enrolled on the Bachelor's Programme in Mathematics, 4 of them are enrolled in the Master's Programme in Mathematics, and 1 of them is enrolled in other program or as a standalone course.

Examination

Written assignment: 23 newly registered students passed.

Oral examination: 21 newly registered students passed.

Written examination: 21 newly registered students passed.

- Ordinary examination 10/01 2023: 16 students participated and 14 of them passed.
- Resit examination 28/01 2023: 7 students participated and 7 of them passed.

Final grades

In all, 21 students have got their final grade.

13 passed with distinction.

8 passed.

Course Evaluation

Summary of student's answers:

The students comments were generally positive and they seem to have appreciated the lectures as well as the lecture notes. The statement 'Overall, I am satisfied with the course' had a mean score of 4.6 out of 5, which is slightly lower than the mean score of 4.8 for the course given during the fall term of 2021. It is clear from the students's comments that the organisation and the structure of the seminars should be improved; for example, the seminars should be scheduled in TimeEdit and their format should be modified. The students seemed to enjoy the new format for the written assignment, which this time included a programming exercise. See the attached report for a complete overview of the students's answers.

Teachers' comments:

The course was taught during the second period of the Autumn term. The lectures took place twice per week, for a total of 15 lectures. Irregular seminars were scheduled in consultation with the students, where the solutions to the homework problems were discussed. The course was administered through Canvas, where handwritten lecture notes and additional material was posted. The course included a written assignment that consisted on a short report of the ElGamal cryptosystem and its implementation in Python; the students were allowed to work in pairs in order to improve their collaboration skills.

Changes from the previous course realisation:

The previous course realisation was taught by a different lecturer, Oscar Marmon. The main differences were in the structure of the seminars and in the written assignment. In the previous realisation there was seemingly more active participation from the students, as they discussed/presented the homework problems in two different groups. The previous written assignment did not include a programming exercise.

Suggestions for the next course realisation:

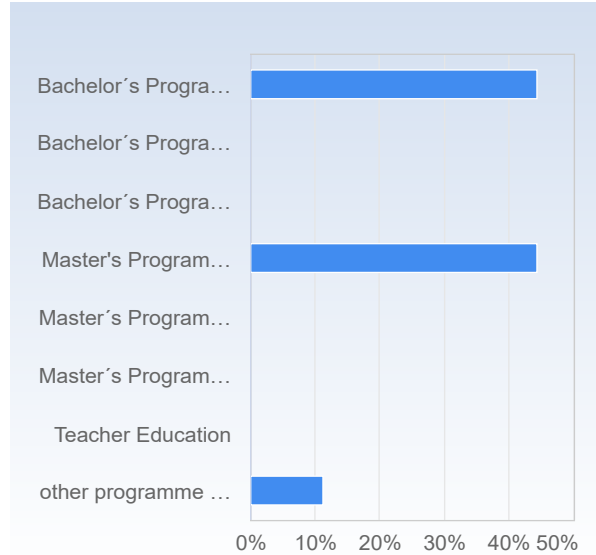
The seminars should be scheduled in TimeEdit since the beginning of the period. The seminar should be re-structured to increase student participation. For example, problems can be assigned in advanced to specific students so that they can present the solutions to the class, with the added confidence of having had enough time to prepare to do this.

MATM35 Number theory 2022/23

Answer Count: 9

I have studied this course as part of

I have studied this course as part of	Number of responses
Bachelor's Programme in Mathematics	4 (44.4%)
Bachelor's Programme in Physics, Theoretical Physics, Astronomy	0 (0.0%)
Bachelor's Programme, other specialization	0 (0.0%)
Master's Programme in Mathematics	4 (44.4%)
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 (11.1%)
Total	9 (100.0%)

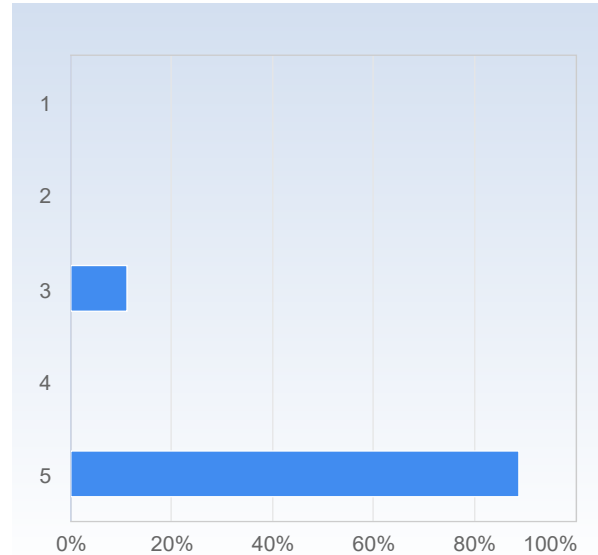


	Mean	Standard Deviation
I have studied this course as part of	3.1	2.4

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.

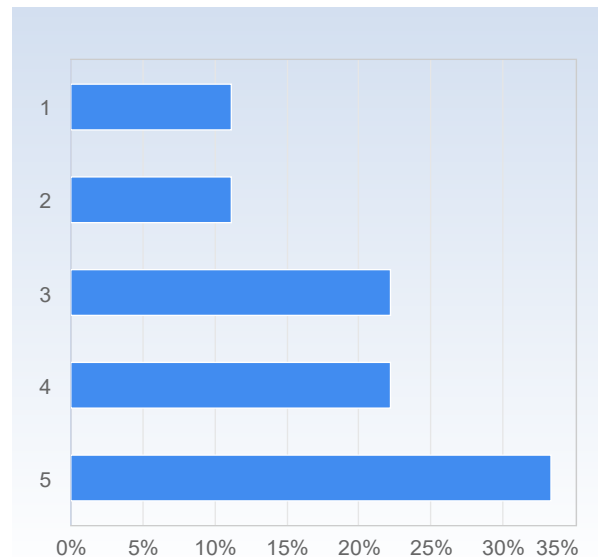
2. My prior knowledge has been sufficient to assimilate the contents of this course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (11.1%)
4	0 (0.0%)
5	8 (88.9%)
Total	9 (100.0%)



2. My prior knowledge has been sufficient to assimilate the contents of this course.	Mean	Standard Deviation
	4.8	0.7

3. I have participated actively in the course.

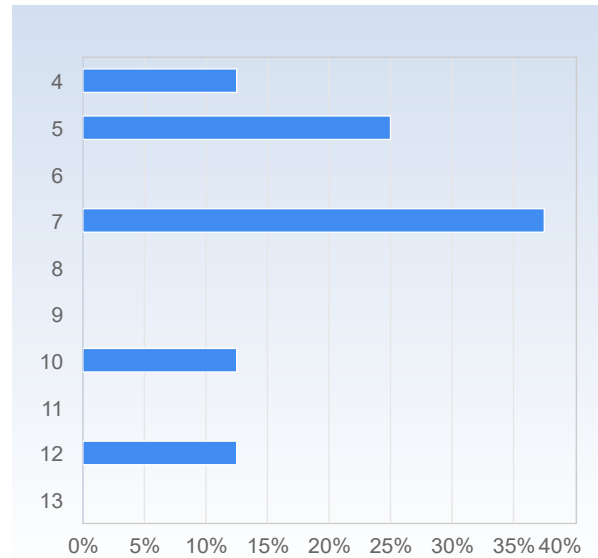
3. I have participated actively in the course.	Number of responses
1	1 (11.1%)
2	1 (11.1%)
3	2 (22.2%)
4	2 (22.2%)
5	3 (33.3%)
Total	9 (100.0%)



3. I have participated actively in the course.	Mean	Standard Deviation
	3.6	1.4

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
4	1 (12.5%)
5	2 (25.0%)
6	0 (0.0%)
7	3 (37.5%)
8	0 (0.0%)
9	0 (0.0%)
10	1 (12.5%)
11	0 (0.0%)
12	1 (12.5%)
13	0 (0.0%)
Total	8 (100.0%)



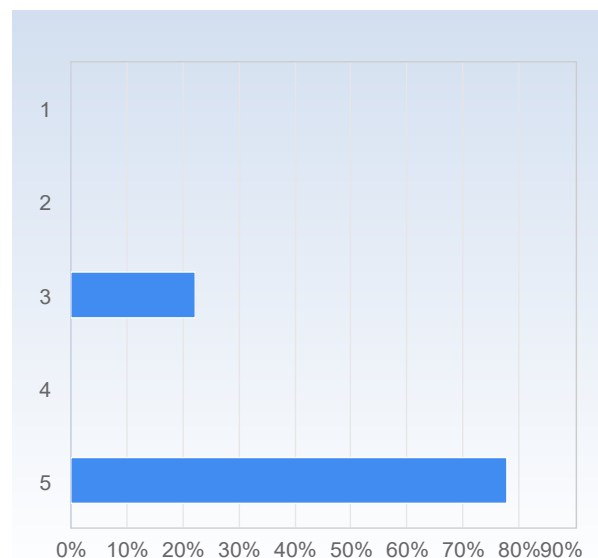
	Mean	Standard Deviation
Average number of hours spent in total on the course per week (including scheduled activities):	7.1	2.7

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.

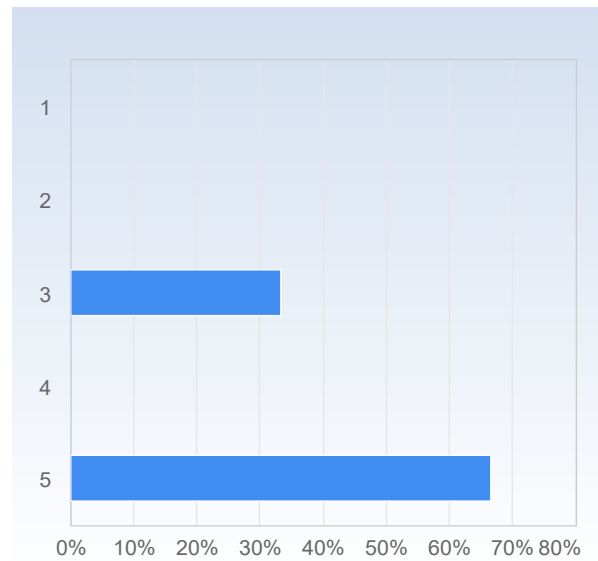
The way the course was taught and organised suited me.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	2 (22.2%)
4	0 (0.0%)
5	7 (77.8%)
Total	9 (100.0%)



	Mean	Standard Deviation
The way the course was taught and organised suited me.	4.6	0.9

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

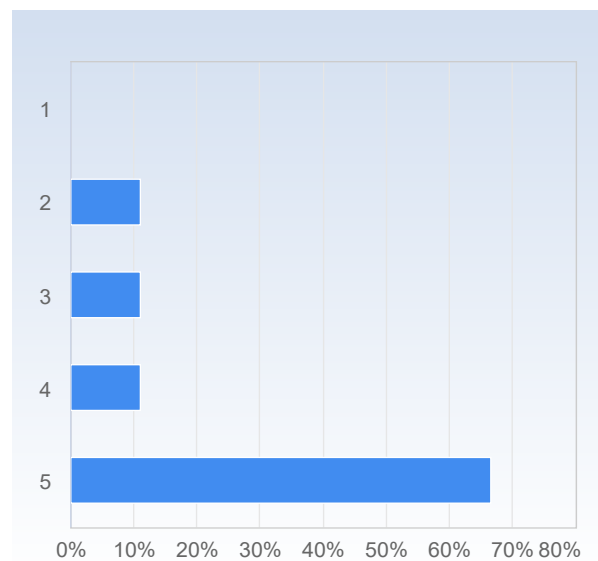
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	3 (33.3%)
4	0 (0.0%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	4.3	1.0

The lectures were valuable for my learning.

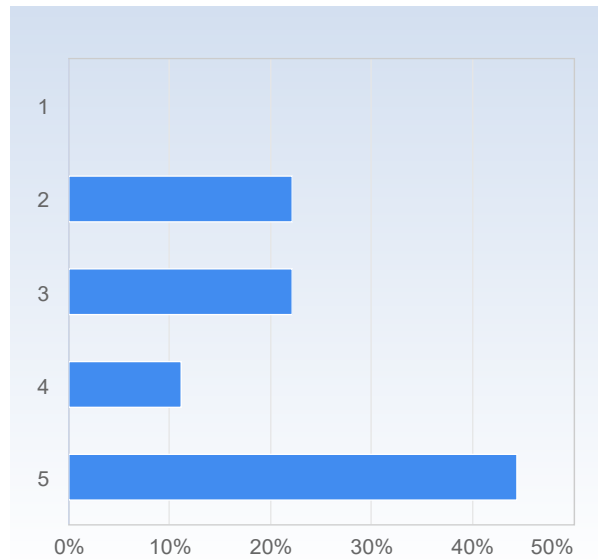
The lectures were valuable for my learning.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	1 (11.1%)
4	1 (11.1%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
The lectures were valuable for my learning.	4.3	1.1

The seminars were valuable for my learning.

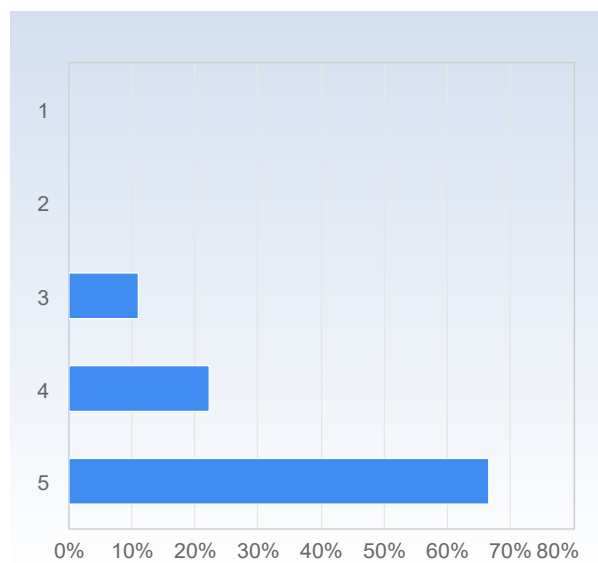
The seminars were valuable for my learning.	Number of responses
1	0 (0.0%)
2	2 (22.2%)
3	2 (22.2%)
4	1 (11.1%)
5	4 (44.4%)
Total	9 (100.0%)



	Mean	Standard Deviation
The seminars were valuable for my learning.	3.8	1.3

Studying on my own was valuable for my learning.

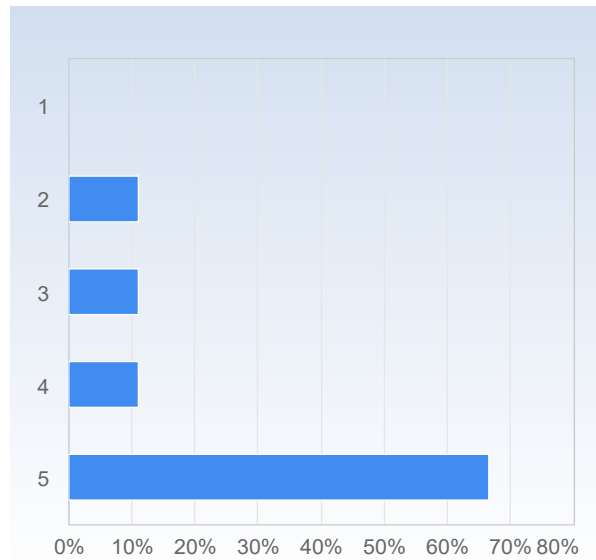
Studying on my own was valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (11.1%)
4	2 (22.2%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
Studying on my own was valuable for my learning.	4.6	0.7

The course literature/material was a valuable learning resource.

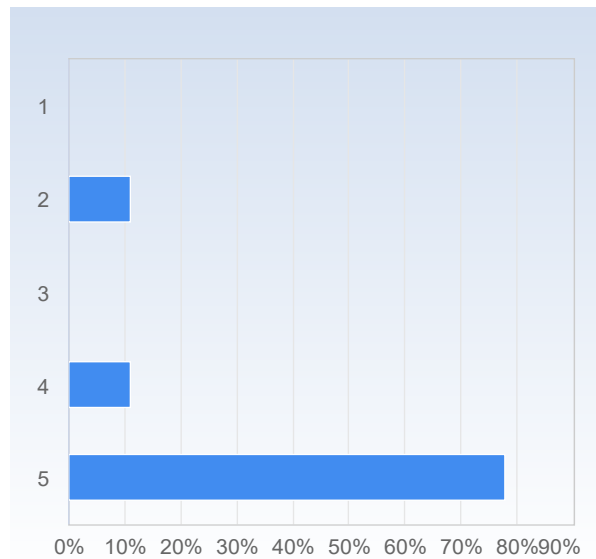
The course literature/material was a valuable learning resource.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	1 (11.1%)
4	1 (11.1%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course literature/material was a valuable learning resource.	4.3	1.1

The information I received before the course start was satisfactory.

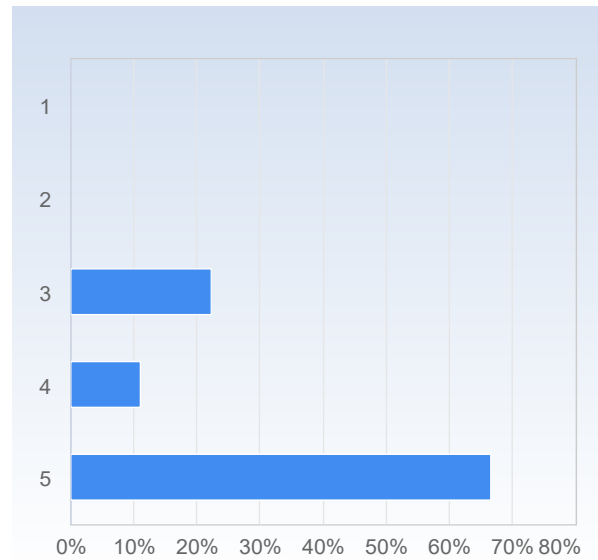
The information I received before the course start was satisfactory.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	0 (0.0%)
4	1 (11.1%)
5	7 (77.8%)
Total	9 (100.0%)



	Mean	Standard Deviation
The information I received before the course start was satisfactory.	4.6	1.0

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

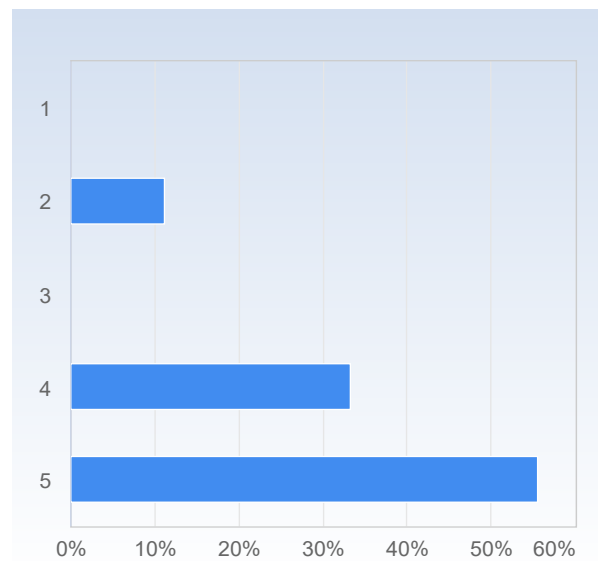
The communication with the teaching staff during the course was good.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	2 (22.2%)
4	1 (11.1%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
The communication with the teaching staff during the course was good.	4.4	0.9

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

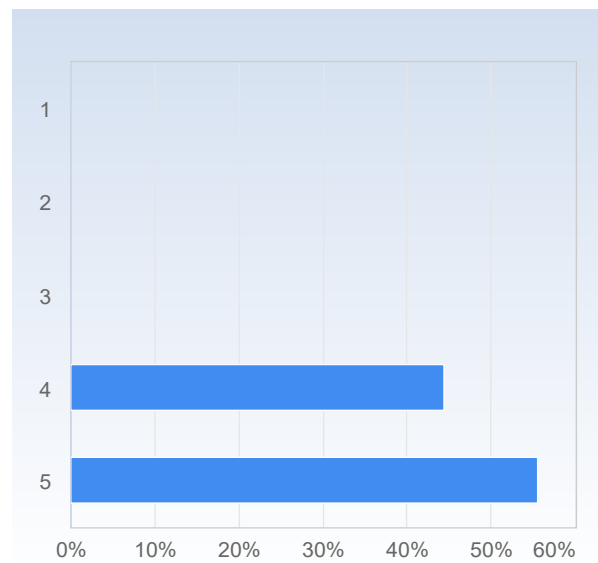
It was clear throughout the course what was expected of me.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	0 (0.0%)
4	3 (33.3%)
5	5 (55.6%)
Total	9 (100.0%)



	Mean	Standard Deviation
It was clear throughout the course what was expected of me.	4.3	1.0

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

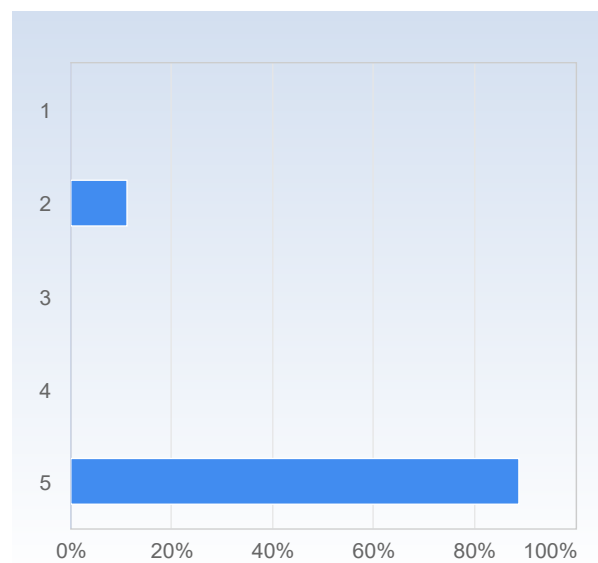
I have received valuable feedback from my teacher /teachers during the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	4 (44.4%)
5	5 (55.6%)
Total	9 (100.0%)



I have received valuable feedback from my teacher/teachers during the course.	Mean	Standard Deviation
	4.6	0.5

The course had a reasonable workload.

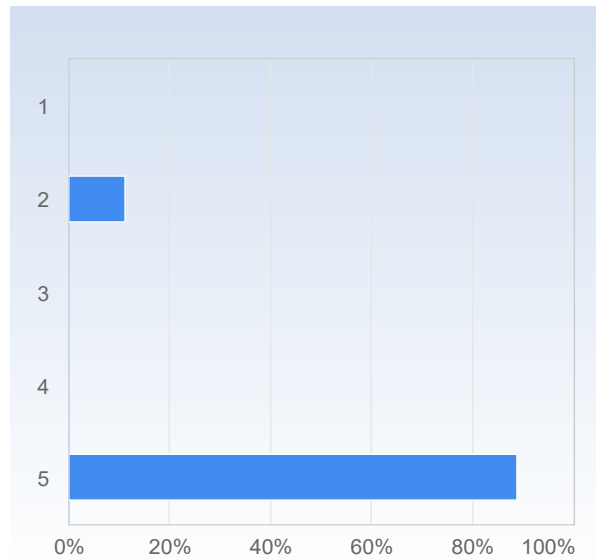
The course had a reasonable workload.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	0 (0.0%)
4	0 (0.0%)
5	8 (88.9%)
Total	9 (100.0%)



The course had a reasonable workload.	Mean	Standard Deviation
	4.7	1.0

The workload was evenly distributed throughout the course.

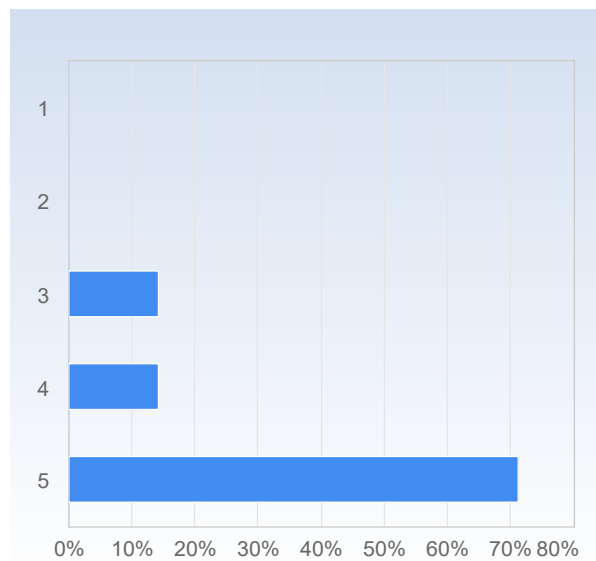
The workload was evenly distributed throughout the course.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	0 (0.0%)
4	0 (0.0%)
5	8 (88.9%)
Total	9 (100.0%)



	Mean	Standard Deviation
The workload was evenly distributed throughout the course.	4.7	1.0

The examination matched the contents and level of the course.

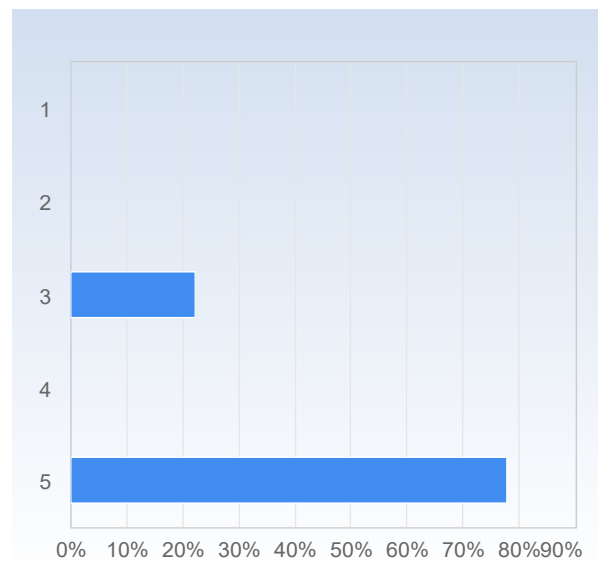
The examination matched the contents and level of the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (14.3%)
4	1 (14.3%)
5	5 (71.4%)
Total	7 (100.0%)



	Mean	Standard Deviation
The examination matched the contents and level of the course.	4.6	0.8

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	2 (22.2%)
4	0 (0.0%)
5	7 (77.8%)
Total	9 (100.0%)



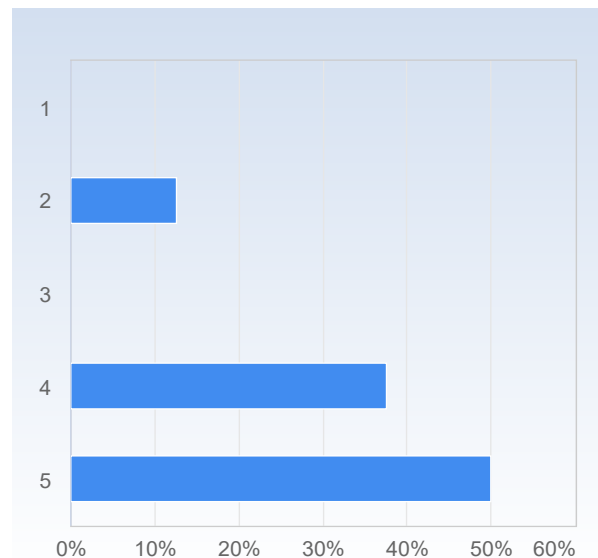
	Mean	Standard Deviation
Overall, I am satisfied with the course.	4.6	0.9

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.

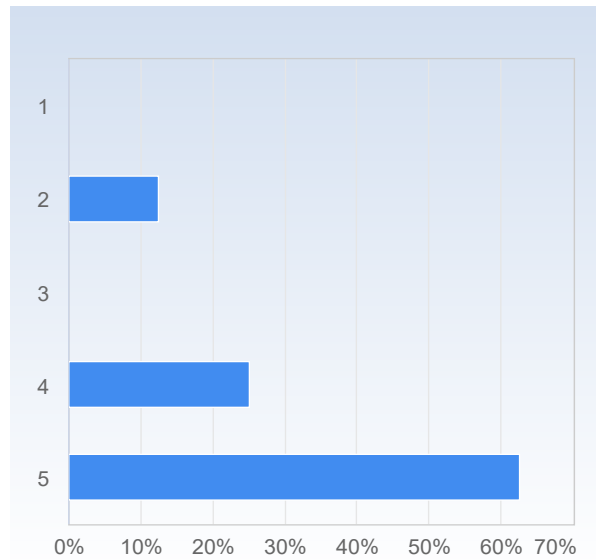
The course has increased my ability to read a mathematical text.	Number of responses
1	0 (0.0%)
2	1 (12.5%)
3	0 (0.0%)
4	3 (37.5%)
5	4 (50.0%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to read a mathematical text.	4.2	1.0

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

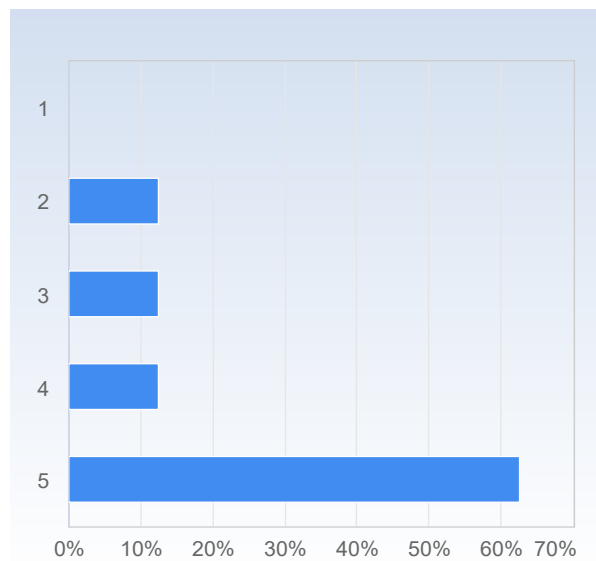
The course has increased my ability to communicate the subject in writing.	Number of responses
1	0 (0.0%)
2	1 (12.5%)
3	0 (0.0%)
4	2 (25.0%)
5	5 (62.5%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject in writing.	4.4	1.1

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

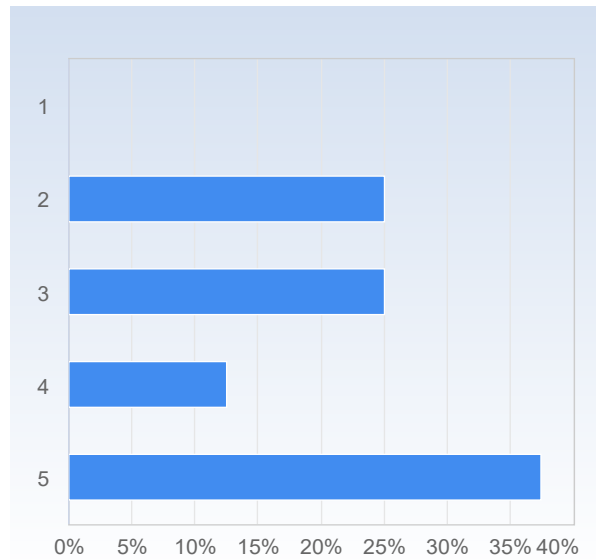
The course has increased my ability to communicate the subject orally.	Number of responses
1	0 (0.0%)
2	1 (12.5%)
3	1 (12.5%)
4	1 (12.5%)
5	5 (62.5%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject orally.	4.2	1.2

The course has increased my ability to cooperate.

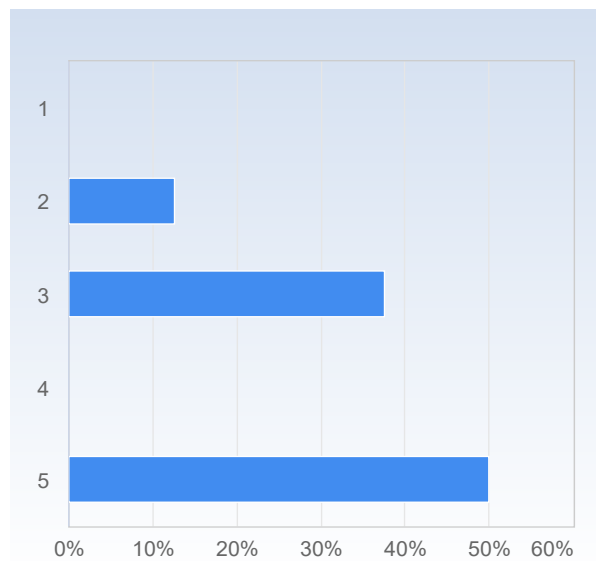
The course has increased my ability to cooperate.	Number of responses
1	0 (0.0%)
2	2 (25.0%)
3	2 (25.0%)
4	1 (12.5%)
5	3 (37.5%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to cooperate.	3.6	1.3

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

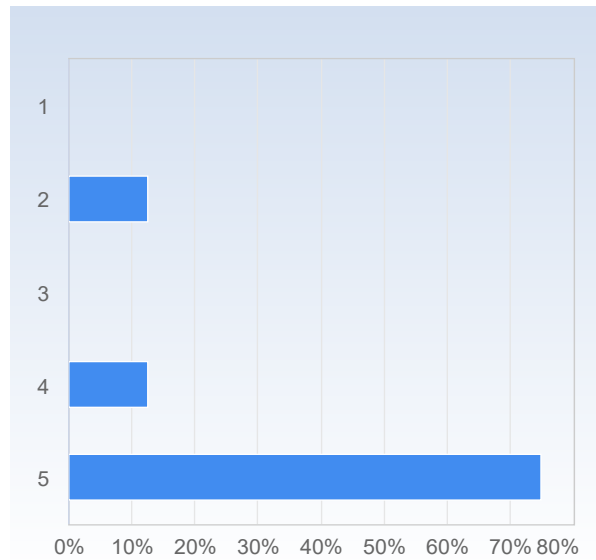
The course has increased my ability to search and process information.	Number of responses
1	0 (0.0%)
2	1 (12.5%)
3	3 (37.5%)
4	0 (0.0%)
5	4 (50.0%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to search and process information.	3.9	1.2

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

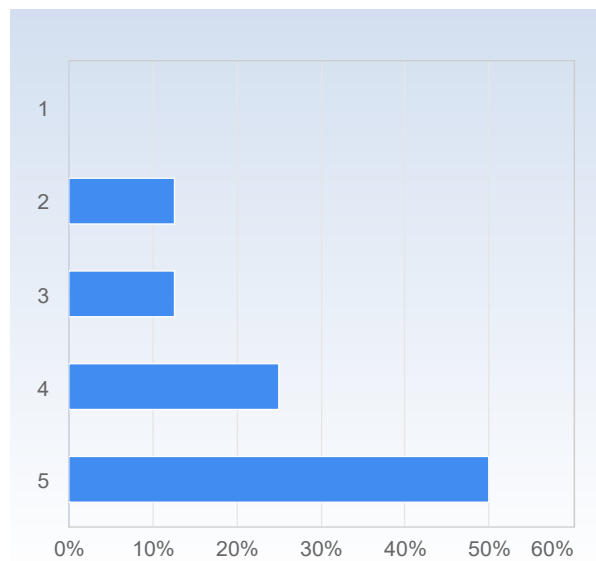
The course has increased my ability to analyze and solve problems.	Number of responses
1	0 (0.0%)
2	1 (12.5%)
3	0 (0.0%)
4	1 (12.5%)
5	6 (75.0%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to analyze and solve problems.	4.5	1.1

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	1 (12.5%)
3	1 (12.5%)
4	2 (25.0%)
5	4 (50.0%)
Total	8 (100.0%)



	Mean	Standard Deviation
As a result of this course, I feel confident about tackling unfamiliar problems.	4.1	1.1

What did you appreciate most with the course?

What did you appreciate most with the course?

I'm saying something I don't do so often. But: This course was outstanding!

It simply had everything a very good course needs! Best thing first: The lecture notes! They were comprehensible, very well-structured, there was no need for buying a book since the (only for the project needed) book is free as online pdf. So many courses get stressful, when you miss a lecture, because the structure is unclear and you don't know what to work through and what to concentrate on. The teacher was always able to answer questions and answered friendly and comprehensibly. I also really liked the topic, though that's rather not because of the course and teaching design. All in all, the course gave me the feeling that we all (teacher and students) are on the same respect/authority level, because we were included in decisions and it felt like the teacher was really willing to make us succeed in the course. Thank you!

I did like the way the course was given. The clarity of the lecture in such the way it was very simple,

The courses were organised in canvas in advance and the lectures notes on canvas were useful. The written assignment was very interesting.

The teacher seemed genuinely passionate for either the subject, teaching, math in general or all of them. This passion was contagious making you want to learn. The lectures were also good they presented the same proofs as the book using different approaches but the teachers comments and occasional anecdotes made it approachable in a different way compared to the book. The available lecture notes were great so that you could study and compare them to the book on your own time.

The abundance of available extra materials was also great. Everything was easy to find and available on canvas which is great and the teacher was quick to fix anything that wasn't.

Good course literature, helpful lecturer.

The lectures were great. Also the additional material.

What do you think should be improved?

What do you think should be improved?

There should be a designated time slot for the seminars on TimeEdit, though how the teacher adapted to the need of a seminar, by giving it a slot after some lectures, this was still great how it was.

The way the seminars are giving.

Though the written assignment was very interesting to do, it values zero points (it was mandatory to do, and we received feedback on it, but there were not points on it).

It would be better having some points on it. The subject of the written assignment was really interesting so maybe it can be covered by another course.

I think that the syllabus was too much to cover in such short period of time.

To be honest, i have no idea. One of the best courses so far.

The exam could have one more challenging exercise.

The choice of course literature.

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, I didn't notice something like that.

No it was not the case.

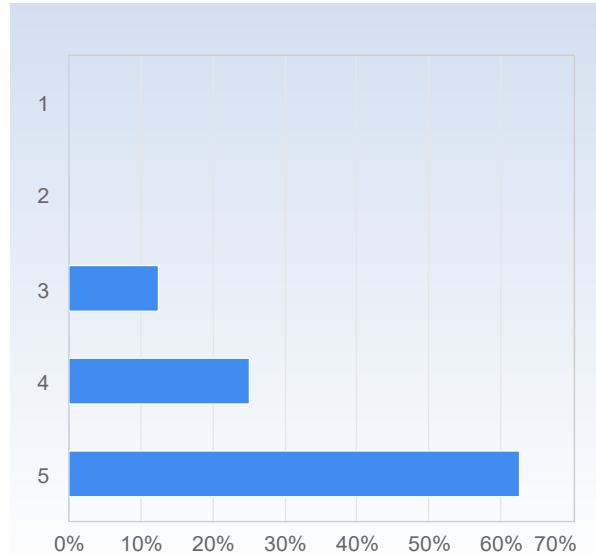
No.

No

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

The written assignment was valuable for my learning

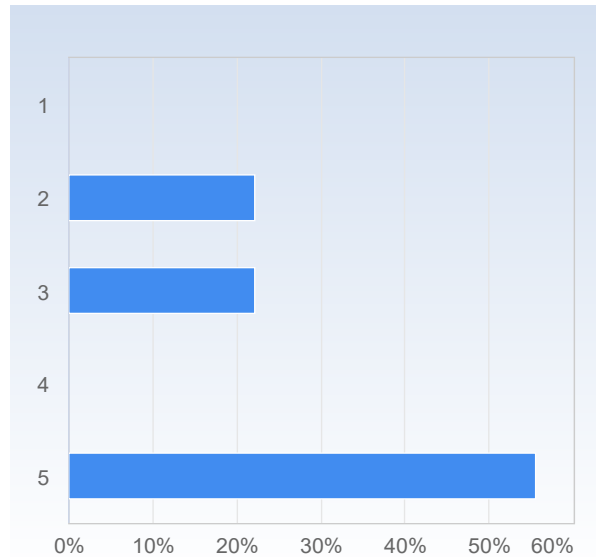
The written assignment was valuable for my learning	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (12.5%)
4	2 (25.0%)
5	5 (62.5%)
Total	8 (100.0%)



	Mean	Standard Deviation
The written assignment was valuable for my learning	4.5	0.8

The seminars were valuable for my learning

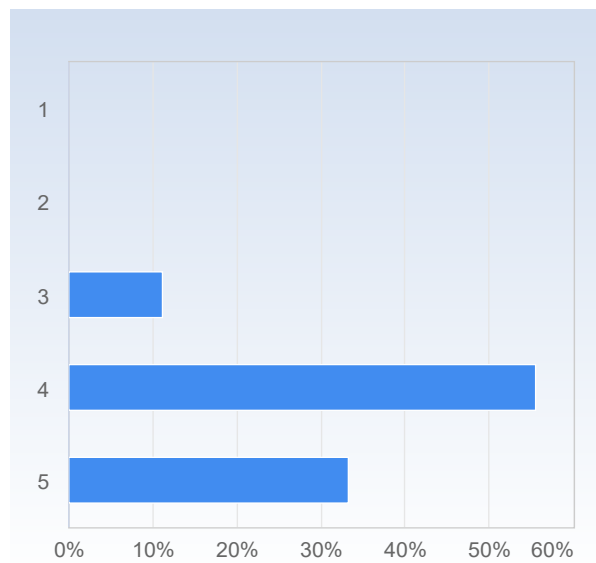
The seminars were valuable for my learning	Number of responses
1	0 (0.0%)
2	2 (22.2%)
3	2 (22.2%)
4	0 (0.0%)
5	5 (55.6%)
Total	9 (100.0%)



	Mean	Standard Deviation
The seminars were valuable for my learning	3.9	1.4

The extra notes were valuable for my learning

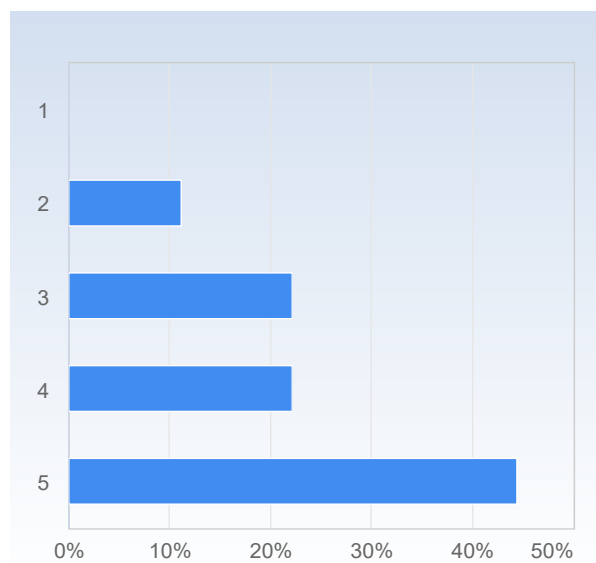
The extra notes were valuable for my learning	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (11.1%)
4	5 (55.6%)
5	3 (33.3%)
Total	9 (100.0%)



	Mean	Standard Deviation
The extra notes were valuable for my learning	4.2	0.7

The complementary readings were valuable for my learning

The complementary readings were valuable for my learning	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	2 (22.2%)
4	2 (22.2%)
5	4 (44.4%)
Total	9 (100.0%)



	Mean	Standard Deviation
The complementary readings were valuable for my learning	4.0	1.1

Comments on the written assignment and the seminars

Comments on the written assignment and the seminars
Not written yet.
It was pretty captivating.
nothing not already said. Great lectures, great seminars.

Comments on the extra notes and the complementary readings

Comments on the extra notes and the complementary readings

Good to have and skim them or read some certain passages more closely. I'm afraid, I didn't study them as closely as I wanted to. Though, it's great they're there, because if you are focussing a thesis on this topic, you really get input here.

Helpful

While i did not use many of them they were nice to have when you had time/need to dig deeper into a subject. (unless extra notes are the lecture notes and solutions in which case they were essential and greatly appreciated)

The complementary material was very goot.