Course summary MATM20 Mathematical modelling, VT 2021

Responsible: Joachim Hein
Other teachers: Raul Hindov

Number of students: 15

Results: 6 G, 6 VG.

Evaluation

I. Summary of course assessment

Total number of answers: 3

Short summary of the results: The answering students showed a high overall satisfaction with the course (overall score: 4.7 out of 5.0). The exercises were well received (4.3 out of 5.0) and the lectures extremely well received (5.0 out of 5.0). The lowest average score (2.7 out of 5.0) was received for the question "The course has increased my ability to cooperate". The second lowest score (3.3 out of 5.0) was given on teacher feedback. The remaining scores were clearly in the positive spectrum (between 3.7 and 5.0 out of 5.0).

II. Comments of the teacher

I am very happy with the overall assessment of the course by the responding students. The course was taught as an online course, which obviously hinders the ability of the students to communicate among each other. Under these circumstances the lower feedback score on the "ability to cooperate" is unfortunately not surprising. The same holds for teacher feedback. In a classroom situation it is easier for the teachers and students to interact. I hope that future re-offerings of the course can be in a classroom, which will hopefully help both these points.

III. Evaluation of changes from earlier occasions of the courses

Compared to the spring term of 2020, more emphasis was placed on the exercises. In this context it is encouraging that the exercises were well received and appreciated.

IV. Proposal for changes for future occasions of the course

We currently expect the next occasion of the course to happen in a classroom setting. This should facilitate more contact and cooperation between the students and improve the teacher student contact as well as the teacher feedback. We will consider setting up group exercises. These will hopefully address the points made in the survey of little collaboration and limited feedback from the teachers. The latter point seems particularly important if against current expectation, the course has to be once more offered as a distance learning course.

2021-12-01 compiled by Joachim Hein

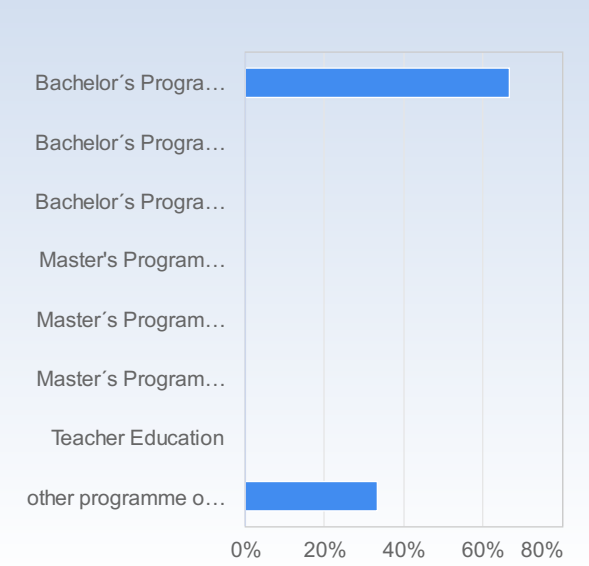
Send the summary to anna-maria.persson@math.lu.se.

Survey for MATM20 in VT2021

Answer Count: 3

I have studied this course as part of

I have studied this course as part of	Number of responses
Bachelor´s Programme in Mathematics	2 (66.7%)
Bachelor´s Programme in Physics, Theoretical Physics, Astronomy	0 (0.0%)
Bachelor´s Programme, other specialization	0 (0.0%)
Master's Programme in Mathematics	0 (0.0%)
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 (33.3%)
Total	3 (100.0%)

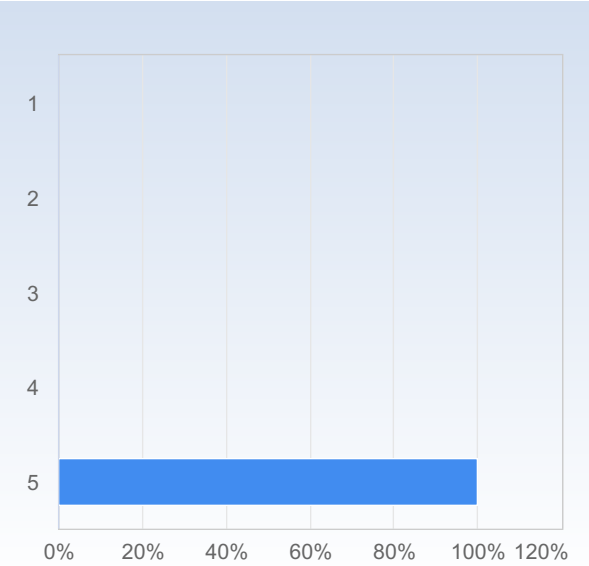


	Mean	Standard Deviation
I have studied this course as part of	3.3	4.0

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.

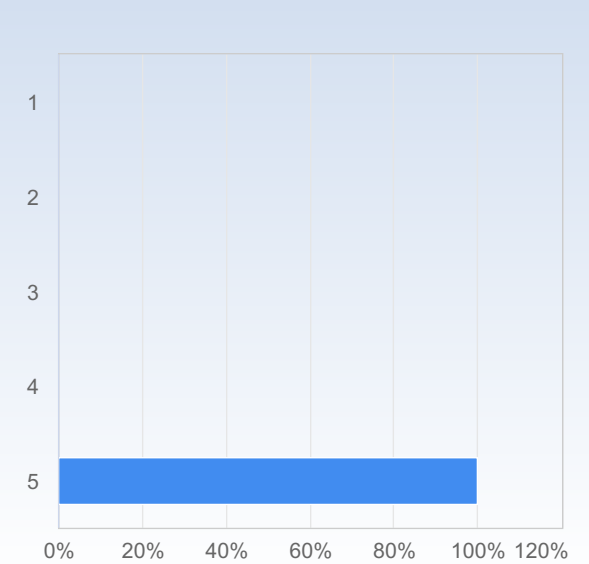
2. My prior knowledge has been sufficient to assimilate the contents of this course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	3 (100.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
2. My prior knowledge has been sufficient to assimilate the contents of this course.	5.0	0.0

3. I have participated actively in the course.

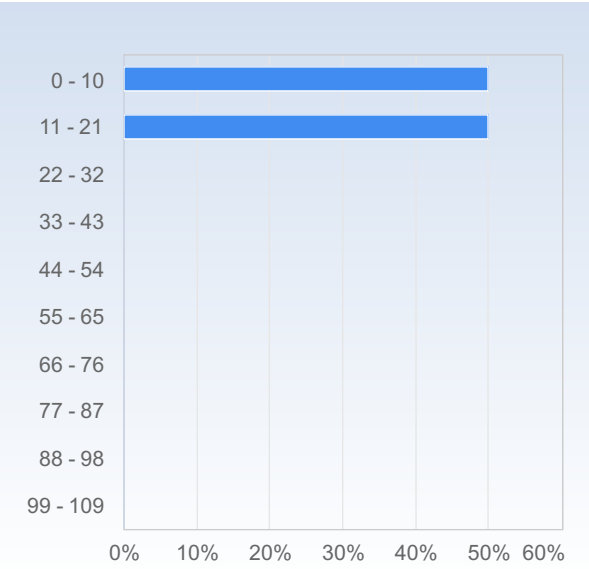
3. I have participated actively in the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	1 (100.0%)
Total	1 (100.0%)



	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
0 - 10	1 (50.0%)
11 - 21	1 (50.0%)
22 - 32	0 (0.0%)
33 - 43	0 (0.0%)
44 - 54	0 (0.0%)
55 - 65	0 (0.0%)
66 - 76	0 (0.0%)
77 - 87	0 (0.0%)
88 - 98	0 (0.0%)
99 - 109	0 (0.0%)
Total	2 (100.0%)

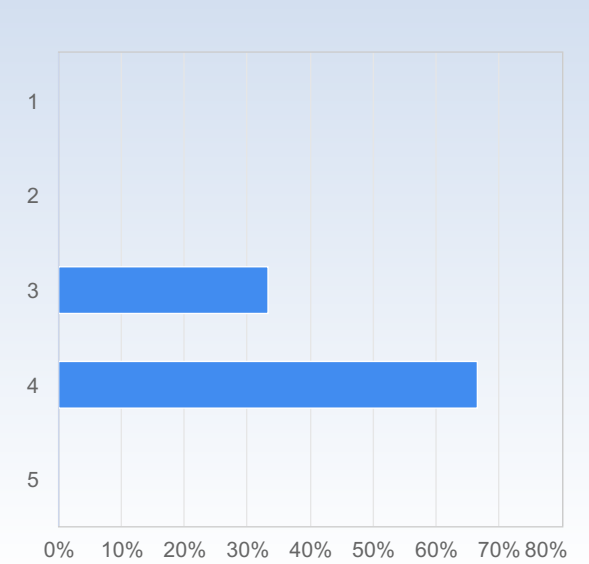


	Mean	Standard Deviation
Average number of hours spent in total on the course per week (including scheduled activities):	11.0	7.1

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.

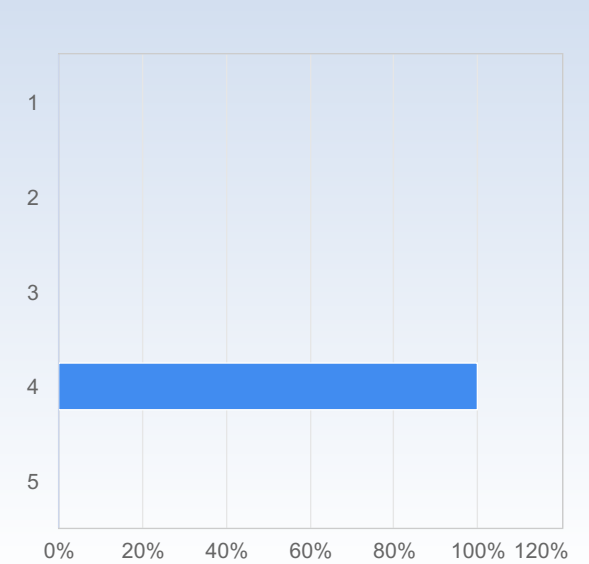
The way the course was taught and organised suited me.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (33.3%)
4	2 (66.7%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The way the course was taught and organised suited me.	3.7	0.6

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

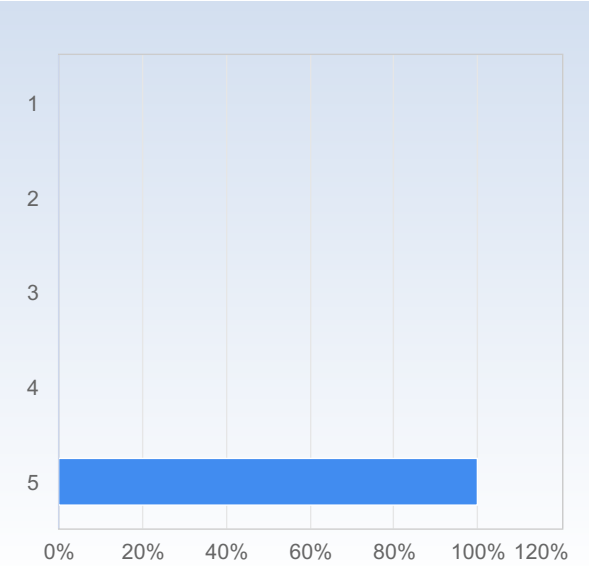
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (100.0%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	4.0	0.0

The lectures were valuable for my learning.

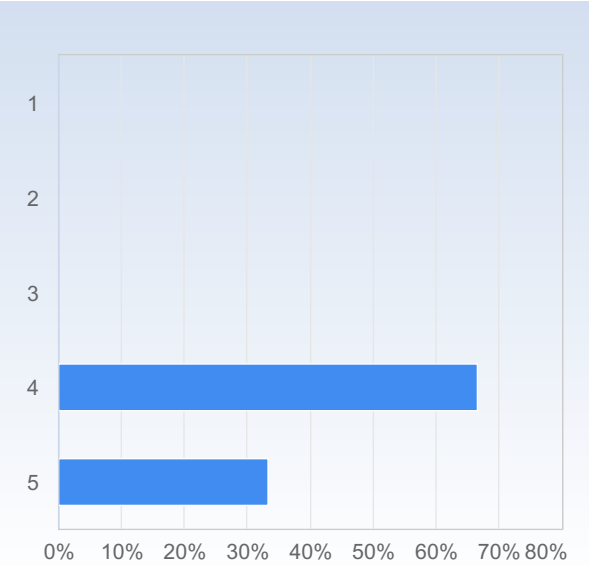
The lectures were valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	3 (100.0%)
Total	3 (100.0%)



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

The set exercises were valuable for depening my understanding of the course

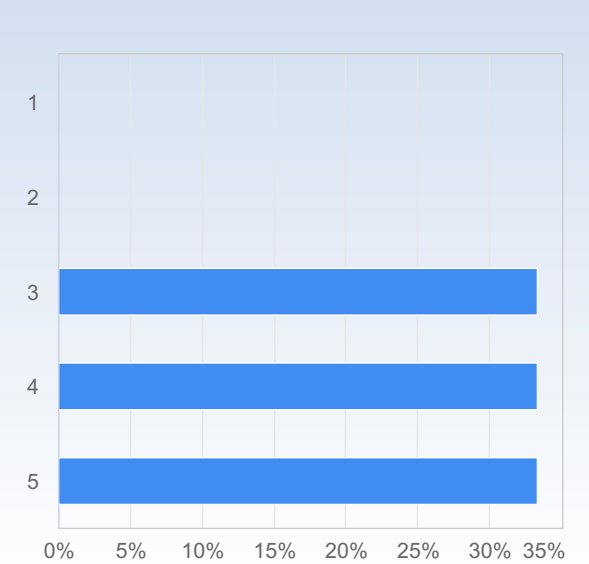
The set exercises were valuable for depening my understanding of the course	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (66.7%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The set exercises were valuable for depening my understanding of the course	4.3	0.6

The seminars were helpful

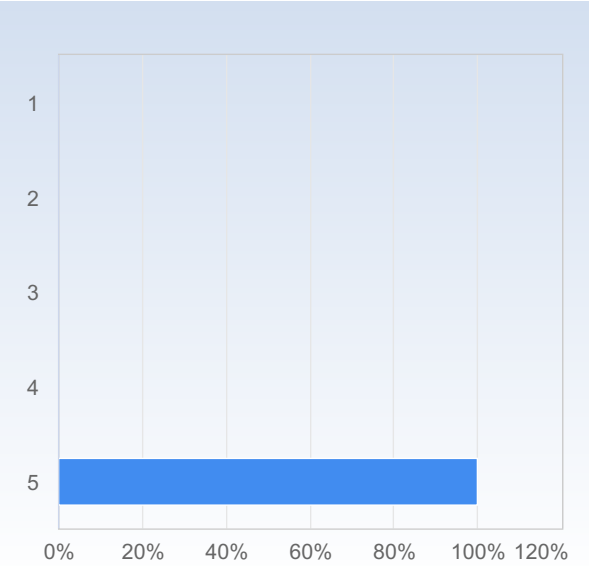
The seminars were helpful	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (33.3%)
4	1 (33.3%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The seminars were helpful	4.0	1.0

Studying on my own was valuable for my learning.

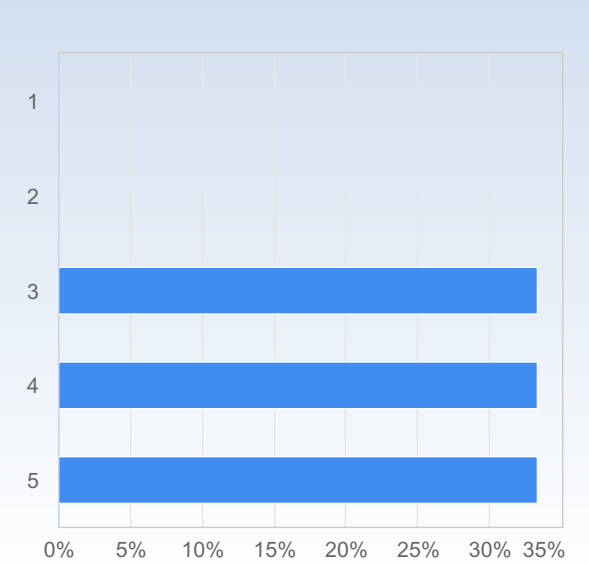
Studying on my own was valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	3 (100.0%)
Total	3 (100.0%)



	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.

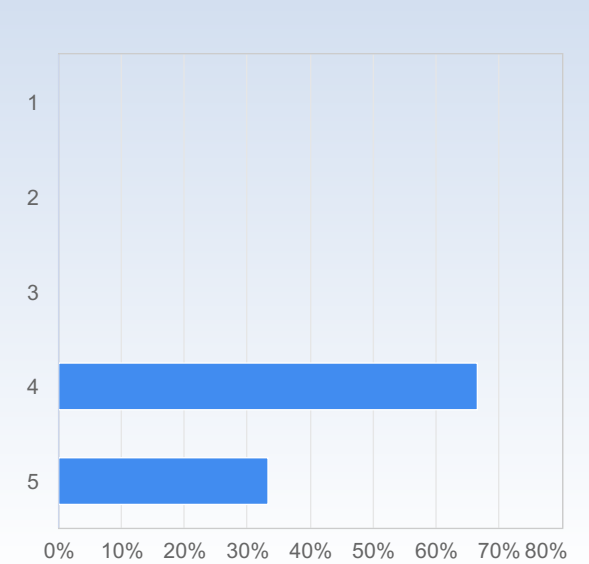
The course literature/material was a valuable learning resource.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (33.3%)
4	1 (33.3%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course literature/material was a valuable learning resource.	4.0	1.0

The information I received before the course start was satisfactory.

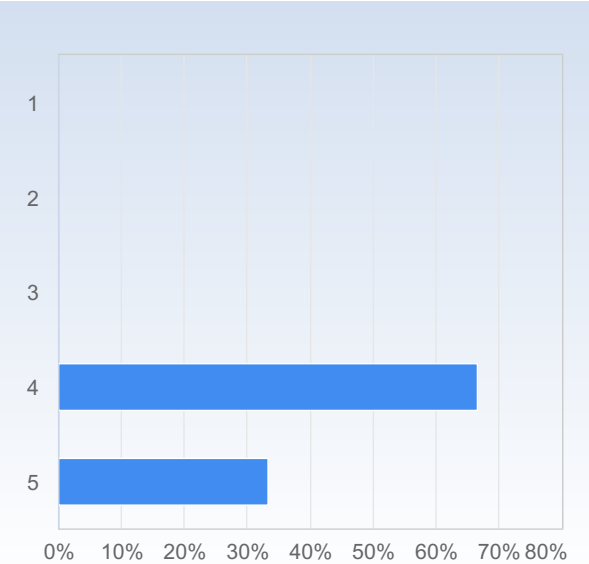
The information I received before the course start was satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (66.7%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The information I received before the course start was satisfactory.	4.3	0.6

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

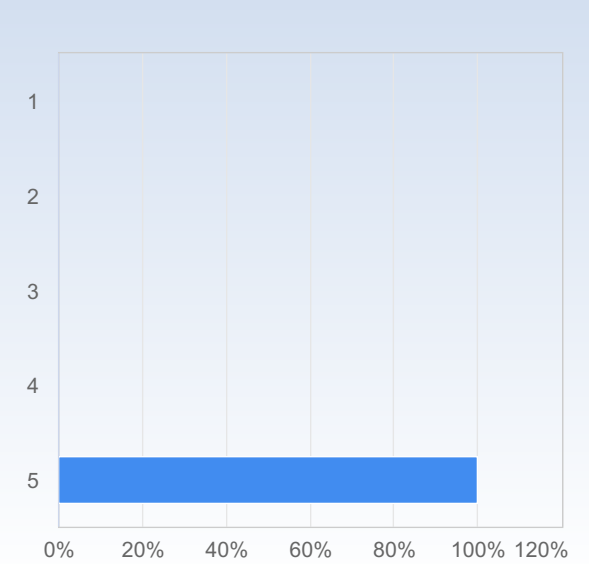
The communication with the teaching staff during the course was good.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (66.7%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The communication with the teaching staff during the course was good.	4.3	0.6

The required transition to online teaching was handled well.

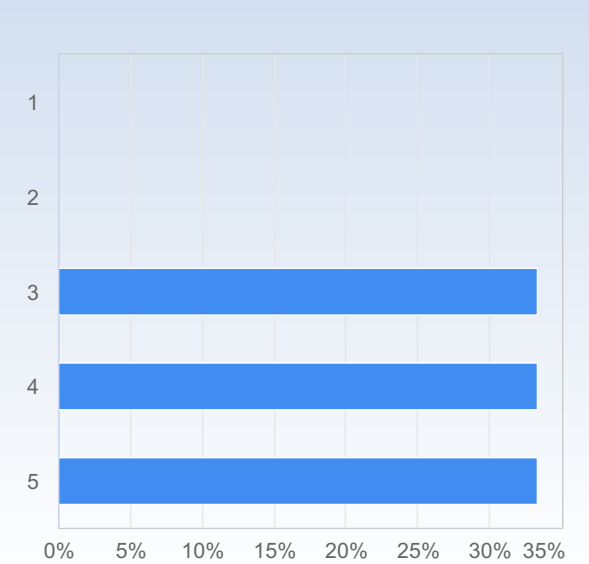
The required transition to online teaching was handled well.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	3 (100.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The required transition to online teaching was handled well.	5.0	0.0

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

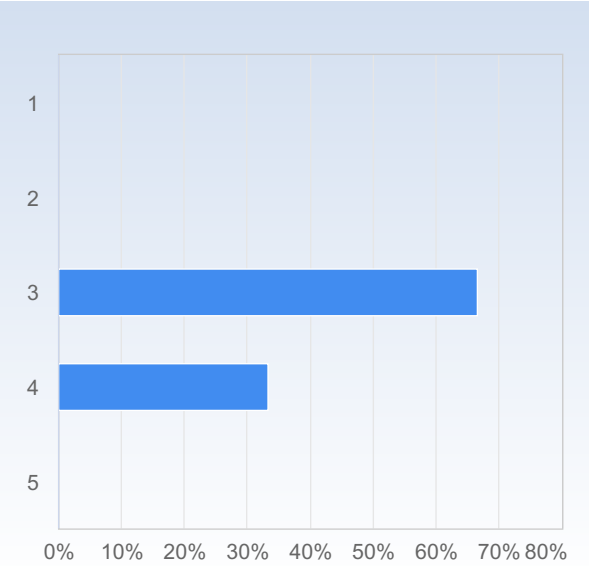
It was clear throughout the course what was expected of me.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (33.3%)
4	1 (33.3%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
It was clear throughout the course what was expected of me.	4.0	1.0

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

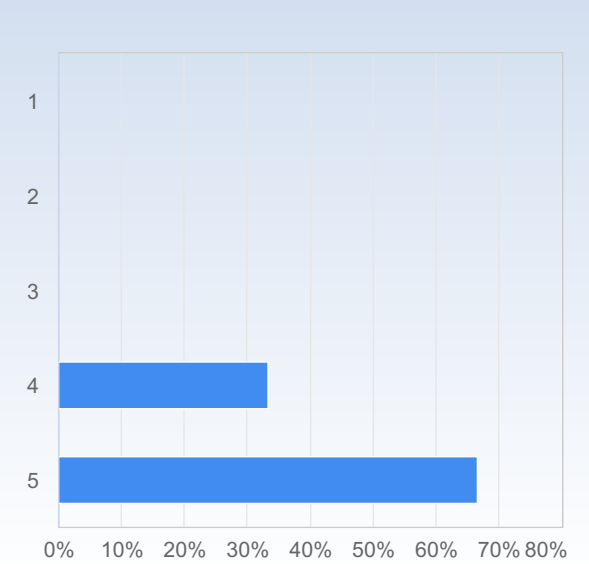
I have received valuable feedback from my teacher /teachers during the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	2 (66.7%)
4	1 (33.3%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
I have received valuable feedback from my teacher/teachers during the course.	3.3	0.6

The course had a reasonable workload.

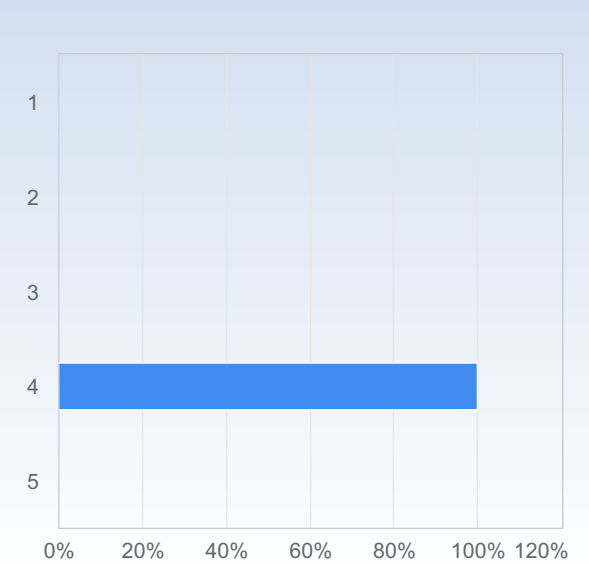
The course had a reasonable workload.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (33.3%)
5	2 (66.7%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course had a reasonable workload.	4.7	0.6

The workload was evenly distributed throughout the course.

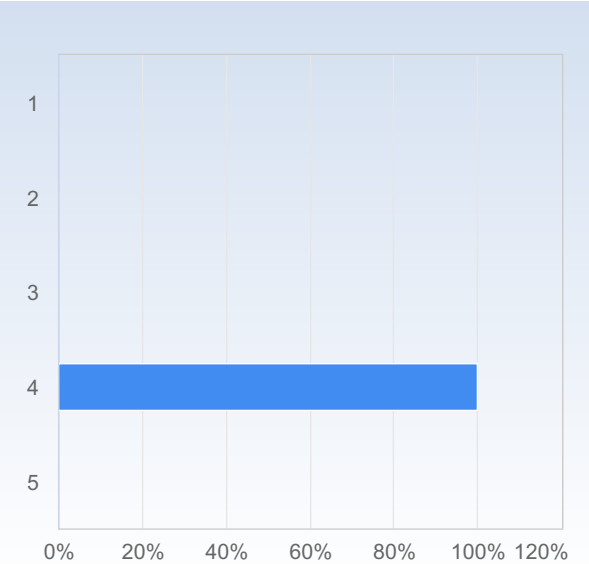
The workload was evenly distributed throughout the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (100.0%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The workload was evenly distributed throughout the course.	4.0	0.0

The examination matched the contents and level of the course.

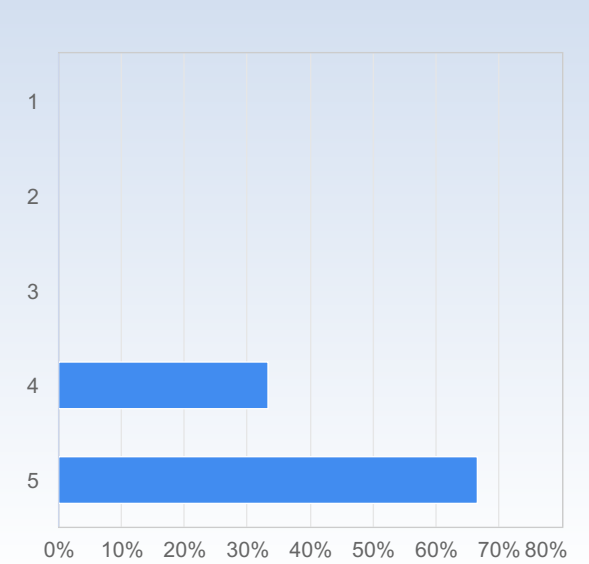
The examination matched the contents and level of the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (100.0%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The examination matched the contents and level of the course.	4.0	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	1 (33.3%)
5	2 (66.7%)
Total	3 (100.0%)



	Mean	Standard Deviation
Overall, I am satisfied with the course.	4.7	0.6

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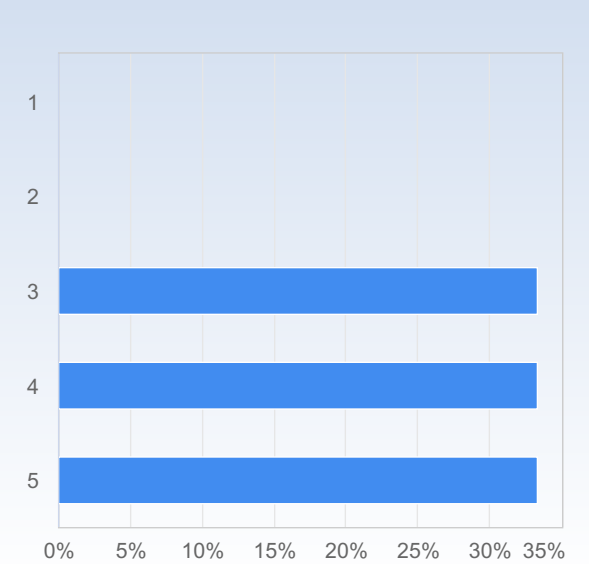
On the development of generic skills

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.

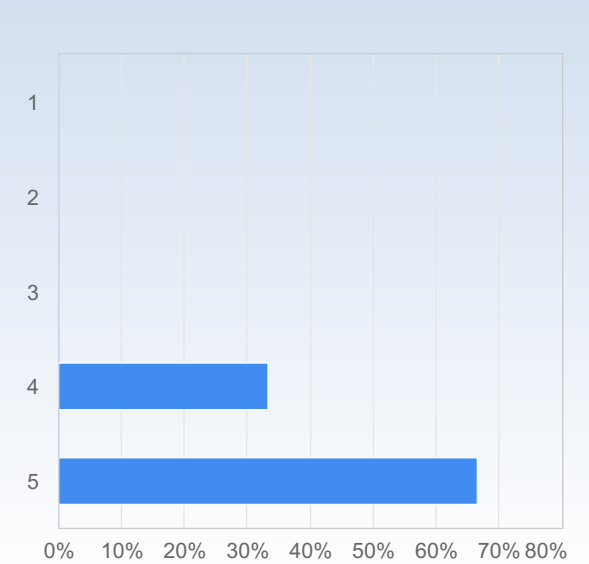
The course has increased my ability to read a mathematical text.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (33.3%)
4	1 (33.3%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to read a mathematical text.	4.0	1.0

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

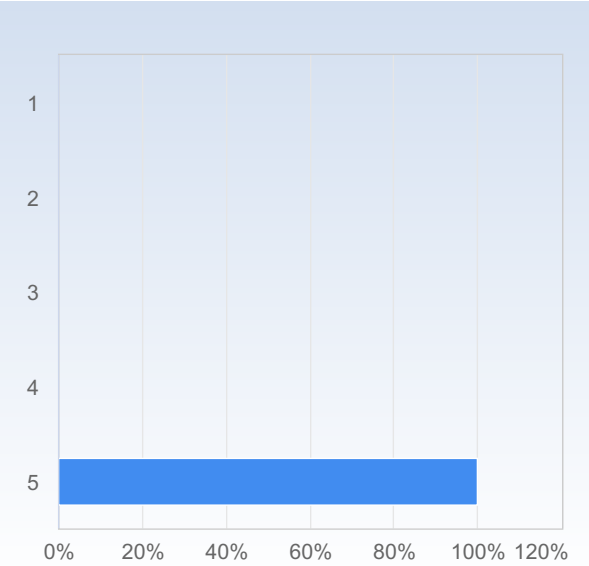
The course has increased my ability to communicate the subject in writing.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (33.3%)
5	2 (66.7%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject in writing.	4.7	0.6

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

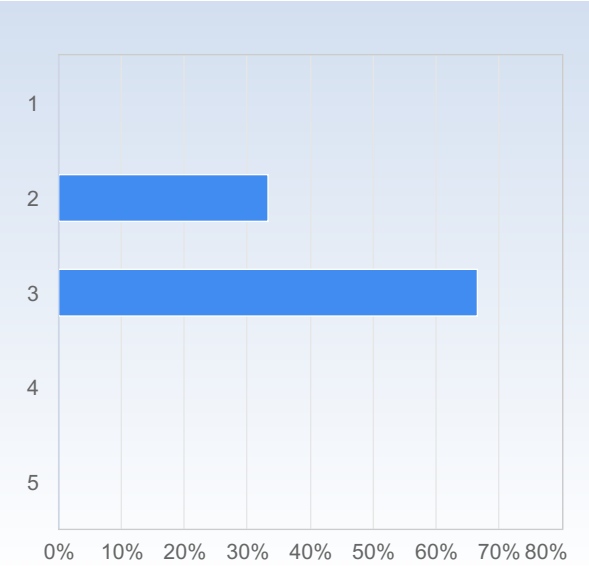
The course has increased my ability to communicate the subject orally.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	3 (100.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject orally.	5.0	0.0

The course has increased my ability to cooperate.

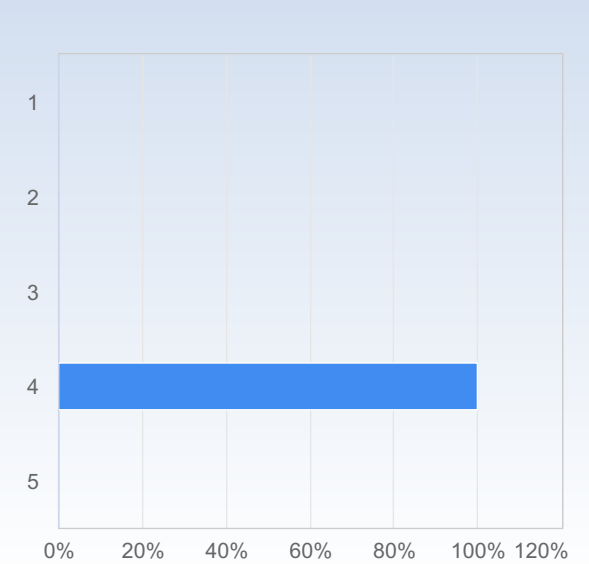
The course has increased my ability to cooperate.	Number of responses
1	0 (0.0%)
2	1 (33.3%)
3	2 (66.7%)
4	0 (0.0%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to cooperate.	2.7	0.6

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

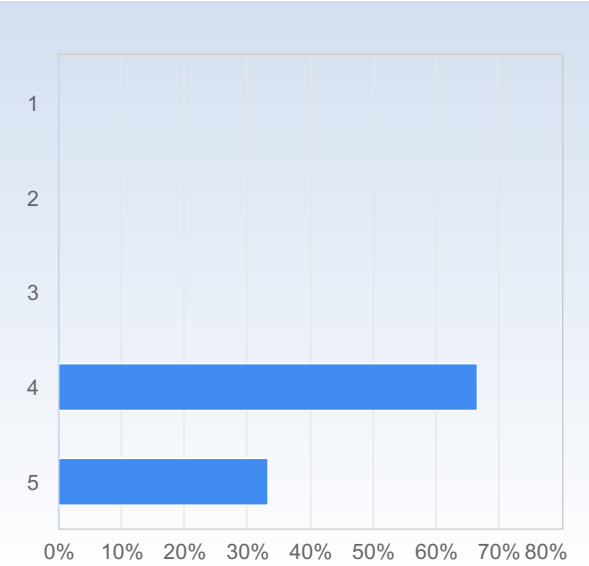
The course has increased my ability to search and process information.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (100.0%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to search and process information.	4.0	0.0

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

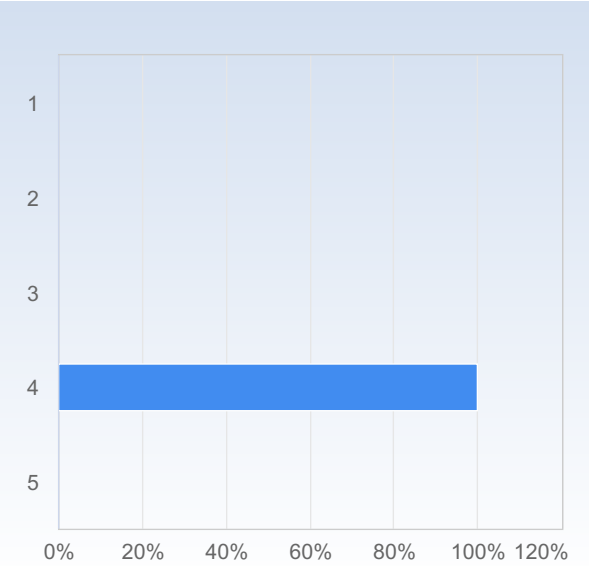
The course has increased my ability to analyze and solve problems.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (66.7%)
5	1 (33.3%)
Total	3 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to analyze and solve problems.	4.3	0.6

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	0 (0.0%)
4	3 (100.0%)
5	0 (0.0%)
Total	3 (100.0%)



	Mean	Standard Deviation
As a result of this course, I feel confident about tackling unfamiliar problems.	4.0	0.0

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What did you appreciate most with the course?

What did you appreciate most with the course?
Nice lectures, concepts were well explained and overall the quality seemed high.
It was interesting and different and give interpretation of mathematical concepts
The literature had very nice introductory descriptions to the topics covered. The real world examples made the theoretical aspects of the course more enjoyable to engage with. The lectures were enjoyable and use of Maple, Python, Excel while in-class was useful for getting to stuck into how to practically solve and model the questions. The solutions/scripts to questions and examples on Maple, Python, Excel. It is obviously essential to do the questions oneself however without having experience on Maple, Python, Excel one can waste a tremendous amount of time googling around for a specific command rather than focusing on understanding the math. So it is very useful to have the scripts from the lectures and after the seminars to use as templates for understanding and solving future problems.

What do you think should be improved?

What do you think should be improved?
I experienced the exam as very stressful, in the sense that I knew how to solve the problems, but simply wasn't fast enough. I had finnished and reviewed all the seminar exercieses and the old exam questions, and had done a lot of reading in the book, so I felt confident that I would do well on the exam. But, during the exam, I noticed that I really needed to have solved a LOT more problems in order to be fast enough to solve the problems in the given time. Next time around, perhaps it would be good to encourage the students to solve a greater volume exercises and habitualize the process more so that they can spend more exam-time thinking about the problems and less time trying to find the right maple command etc... Perhaps a list of suggested complimentary exercises?
More theory. Especially in different programming problems. Less numerical integration and newton method as it is already covered in multiple other courses.
Perhaps a bit more extra information at the very beginning of the course about what material will be covered, assignments, exam, etc. as it's always nice to have a good summary in one's head (even if something is forced to change. And also to ensure that there are the above mentioned scripts. All in all, most things seemed to run smoothly.

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, they've been lovely!
no
Nope not at all, everyone was lovely :)