



LUND UNIVERSITY
Faculty of Science

Centre for Mathematical Sciences
Division of Mathematics and Numerical Analysis

MATB23 Analysis in Several Variables 2, Spring 2023

Course Information

Lecturer: Yacin Ameur

Teaching assistants: Giang To

Number of students:

56 newly registered and 16 re-registered.

9 students answered the course evaluation, 6 of them are enrolled on Bachelor's Programme in Mathematics, 1 in Bachelor's Programme in Physics and 2 in Teacher Education.

Examination

Written examination: 46 students passed.

- Ordinary examination 23/5 2023: 45 students participated and 29 of them passed.

- Resit examination 15/8 2023: 21 students participated and 16 of them passed.

Final grades:

In all, 45 students, including 5 re-registered students, have got their final grade.

10 passed with distinction.

35 passed.

Course Evaluation

Summary of student's answers:

Only 9 students answered, so it is a little hard to draw conclusions. My impression is that they are not too unhappy with the course, but of course there are things to improve. (See also my own comments below.)

Teachers' comments:

The course consists of lectures and seminars with a written examination at the end, and possibly an oral for the pass with distinction. Generally speaking I think that the course went along fairly well, but it would be much better if the course literature were coordinated with the course Analysis in Several Variables 1, MATB21. The fact that new literature was introduced in the prerequisite course created unnecessary stress for the students and generally decreased the stability in the course.

Changes from the previous course realisation:

No major changes.

Suggestions for the next course realisation:

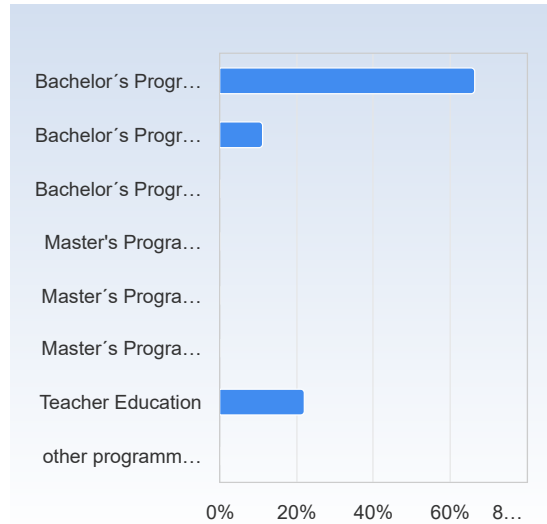
Of course we should use one main textbook for MATB21 and MATB23. It is important to have one main source for exercises etc, and I think Adams' textbook is probably the least bad alternative. I am not saying that we should follow Adams' mathematical exposition in our lectures. I also suggest to bring in Spivak's calculus book as a side reading for both courses, which brings in a more rigorous perspective.

MATB23 Several Variables 2, Spring 2023

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	6 (66.7%)
Bachelor's Programme in Physics, Theoretical Physics, Astronomy	1 (11.1%)
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	2 (22.2%)
other programme or as stand alone course	0 (0.0%)
Total	9 (100.0%)

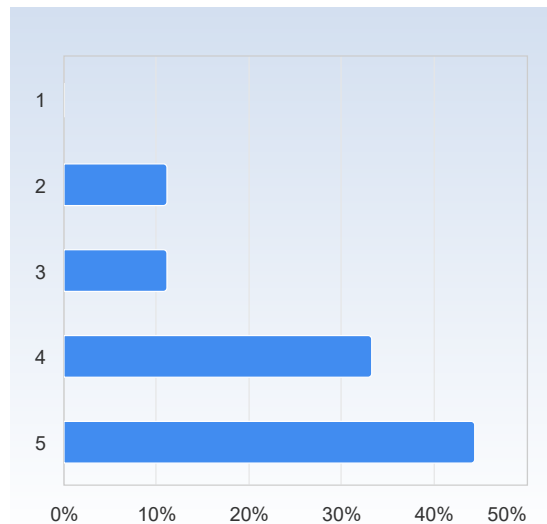


	Mean	Standard Deviation
I have studied this course as part of	2.4	2.6

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.

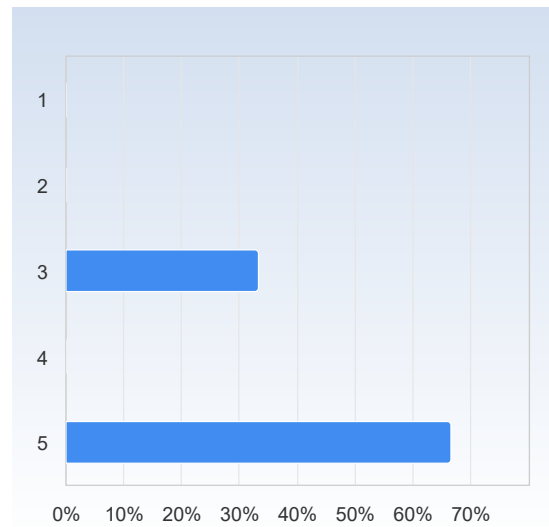
2. My prior knowledge has been sufficient to assimilate the contents of this course.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	1 (11.1%)
4	3 (33.3%)
5	4 (44.4%)
Total	9 (100.0%)



	Mean	Standard Deviation
2. My prior knowledge has been sufficient to assimilate the contents of this course.	4.1	1.1

3. I have participated actively in the course.

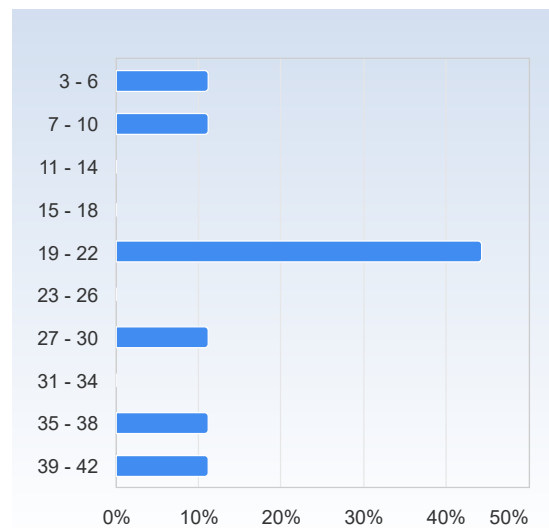
3. I have participated actively in the course.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	3 (33.3%)
4	0 (0.0%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
3. I have participated actively in the course.	4.3	1.0

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
3 - 6	1 (11.1%)
7 - 10	1 (11.1%)
11 - 14	0 (0.0%)
15 - 18	0 (0.0%)
19 - 22	4 (44.4%)
23 - 26	0 (0.0%)
27 - 30	1 (11.1%)
31 - 34	0 (0.0%)
35 - 38	1 (11.1%)
39 - 42	1 (11.1%)
Total	9 (100.0%)



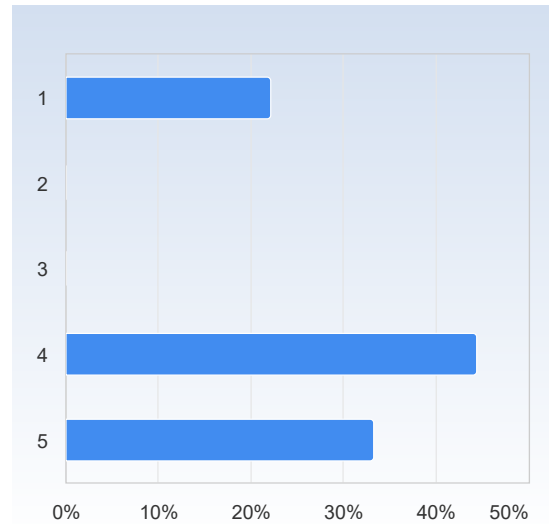
	Mean	Standard Deviation
Average number of hours spent in total on the course per week (including scheduled activities):	22.4	11.2

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.

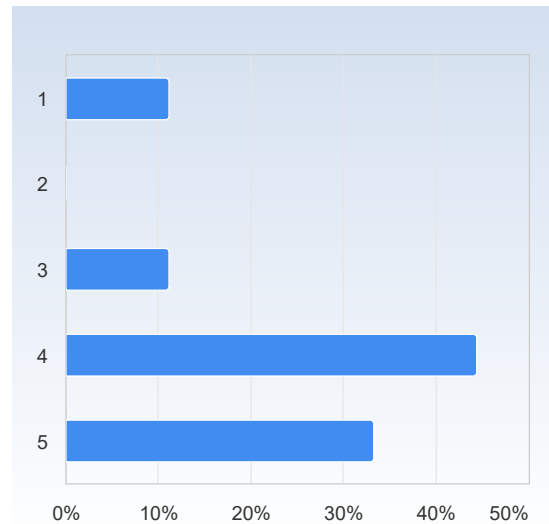
The way the course was taught and organised suited me.	Number of responses
1	2 (22.2%)
2	0 (0.0%)
3	0 (0.0%)
4	4 (44.4%)
5	3 (33.3%)
Total	9 (100.0%)



	Mean	Standard Deviation
The way the course was taught and organised suited me.	3.7	1.6

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

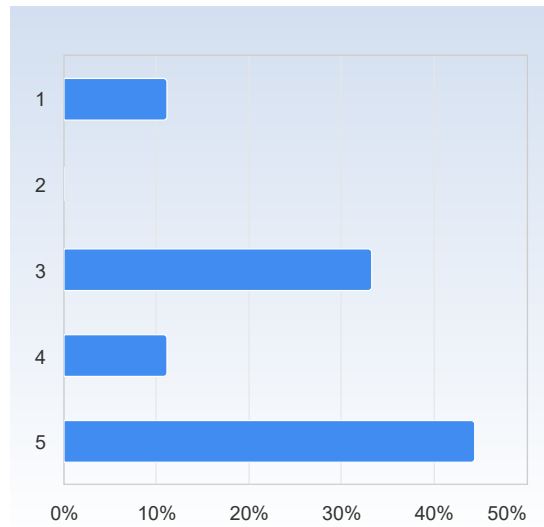
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	1 (11.1%)
4	4 (44.4%)
5	3 (33.3%)
Total	9 (100.0%)



	Mean	Standard Deviation
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	3.9	1.3

The lectures were valuable for my learning.

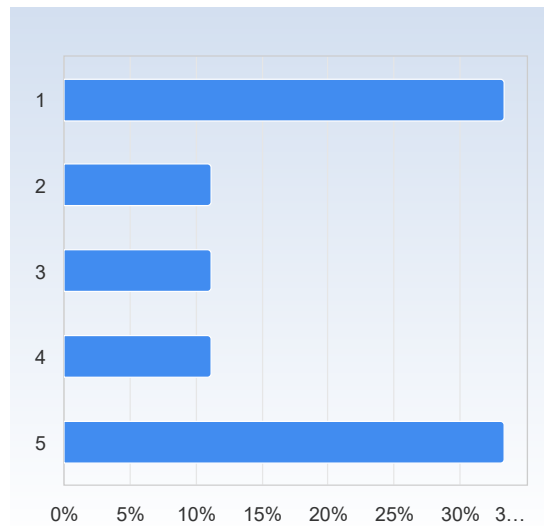
The lectures were valuable for my learning.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	3 (33.3%)
4	1 (11.1%)
5	4 (44.4%)
Total	9 (100.0%)



	Mean	Standard Deviation
The lectures were valuable for my learning.	3.8	1.4

The seminars were valuable for my learning.

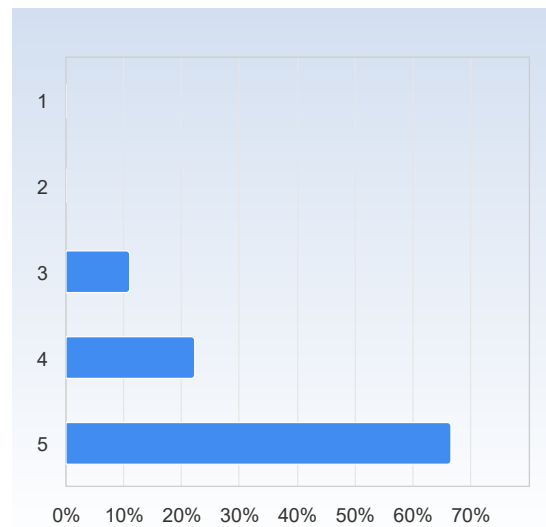
The seminars were valuable for my learning.	Number of responses
1	3 (33.3%)
2	1 (11.1%)
3	1 (11.1%)
4	1 (11.1%)
5	3 (33.3%)
Total	9 (100.0%)



	Mean	Standard Deviation
The seminars were valuable for my learning.	3.0	1.8

Studying on my own was valuable for my learning.

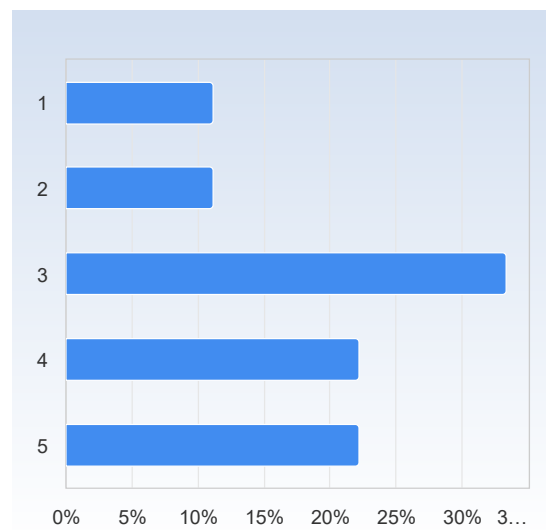
Studying on my own was valuable for my learning.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (11.1%)
4	2 (22.2%)
5	6 (66.7%)
Total	9 (100.0%)



	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.

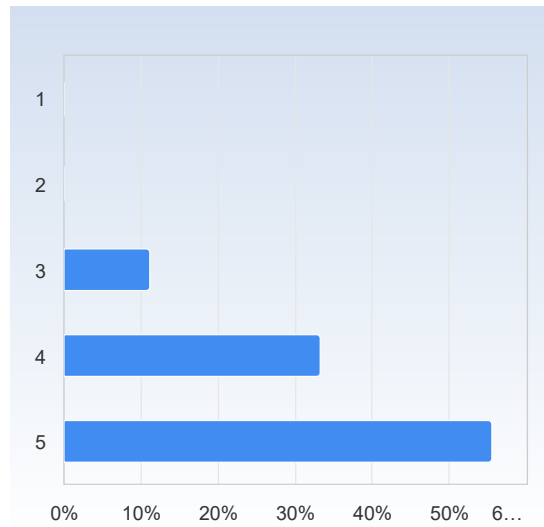
The course literature/material was a valuable learning resource.	Number of responses
1	1 (11.1%)
2	1 (11.1%)
3	3 (33.3%)
4	2 (22.2%)
5	2 (22.2%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course literature/material was a valuable learning resource.	3.3	1.3

The information I received before the course start was satisfactory.

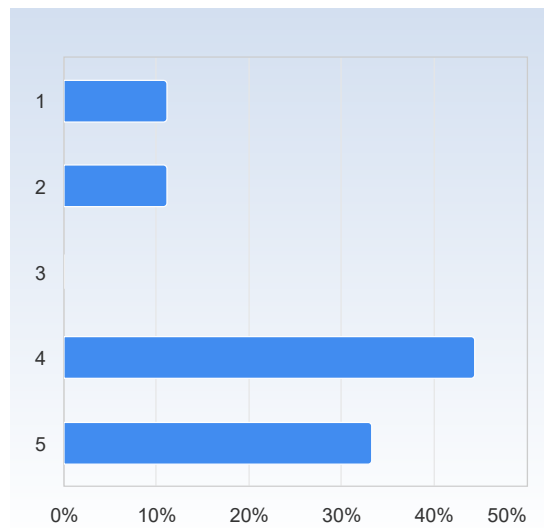
The information I received before the course start was satisfactory.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	1 (11.1%)
4	3 (33.3%)
5	5 (55.6%)
Total	9 (100.0%)



	Mean	Standard Deviation
The information I received before the course start was satisfactory.	4.4	0.7

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

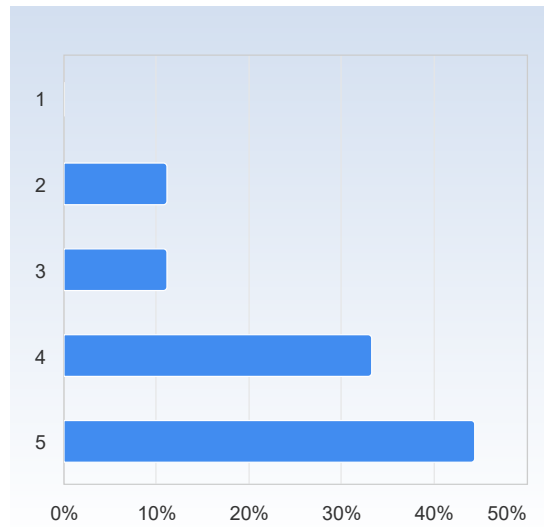
The communication with the teaching staff during the course was good.	Number of responses
1	1 (11.1%)
2	1 (11.1%)
3	0 (0.0%)
4	4 (44.4%)
5	3 (33.3%)
Total	9 (100.0%)



	Mean	Standard Deviation
The communication with the teaching staff during the course was good.	3.8	1.4

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

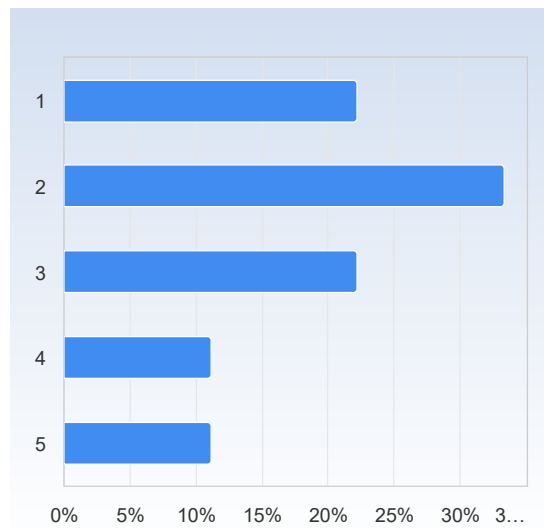
It was clear throughout the course what was expected of me.	Number of responses
1	0 (0.0%)
2	1 (11.1%)
3	1 (11.1%)
4	3 (33.3%)
5	4 (44.4%)
Total	9 (100.0%)



	Mean	Standard Deviation
It was clear throughout the course what was expected of me.	4.1	1.1

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

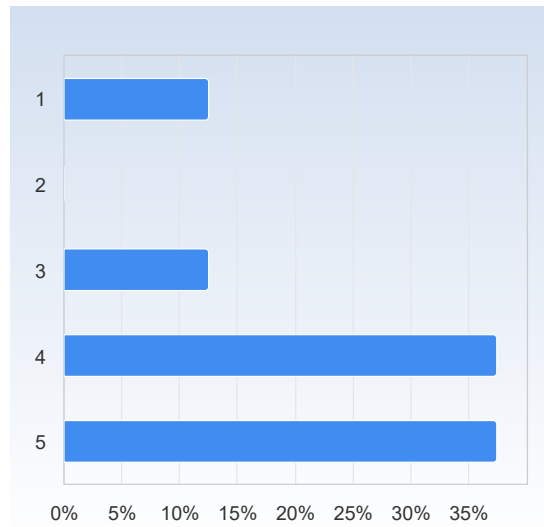
I have received valuable feedback from my teacher /teachers during the course.	Number of responses
1	2 (22.2%)
2	3 (33.3%)
3	2 (22.2%)
4	1 (11.1%)
5	1 (11.1%)
Total	9 (100.0%)



	Mean	Standard Deviation
I have received valuable feedback from my teacher/teachers during the course.	2.6	1.3

The course had a reasonable workload.

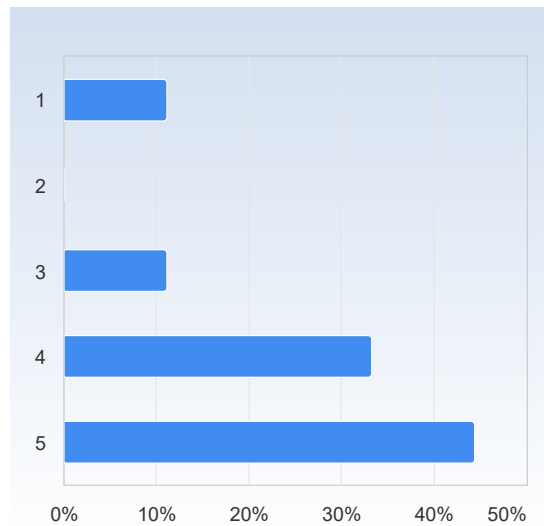
The course had a reasonable workload.	Number of responses
1	1 (12.5%)
2	0 (0.0%)
3	1 (12.5%)
4	3 (37.5%)
5	3 (37.5%)
Total	8 (100.0%)



	Mean	Standard Deviation
The course had a reasonable workload.	3.9	1.4

The workload was evenly distributed throughout the course.

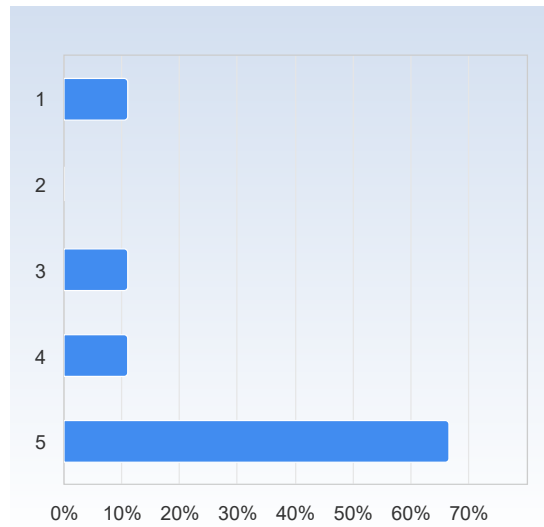
The workload was evenly distributed throughout the course.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	1 (11.1%)
4	3 (33.3%)
5	4 (44.4%)
Total	9 (100.0%)



	Mean	Standard Deviation
The workload was evenly distributed throughout the course.	4.0	1.3

The examination matched the contents and level of the course.

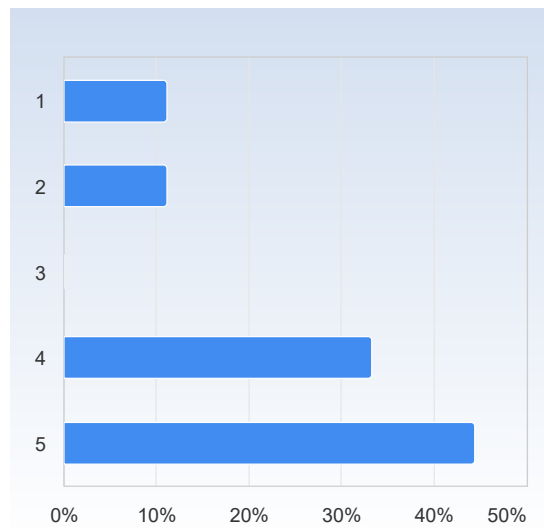
The examination matched the contents and level of the course.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	1 (11.1%)
4	1 (11.1%)
5	6 (66.7%)
Total	9 (100.0%)



	Mean	Standard Deviation
The examination matched the contents and level of the course.	4.2	1.4

Overall, I am satisfied with the course.

Overall, I am satisfied with the course.	Number of responses
1	1 (11.1%)
2	1 (11.1%)
3	0 (0.0%)
4	3 (33.3%)
5	4 (44.4%)
Total	9 (100.0%)



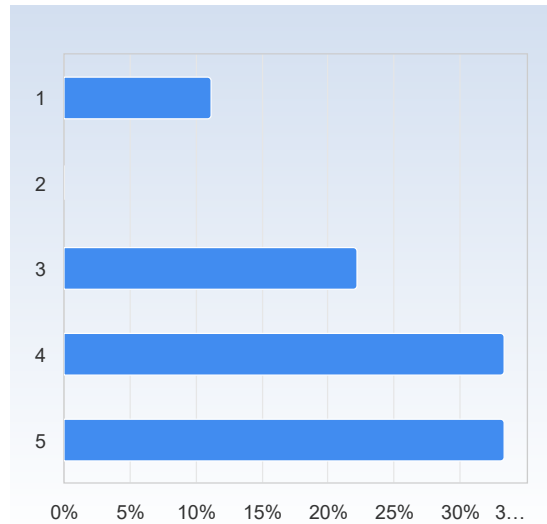
	Mean	Standard Deviation
Overall, I am satisfied with the course.	3.9	1.5

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.

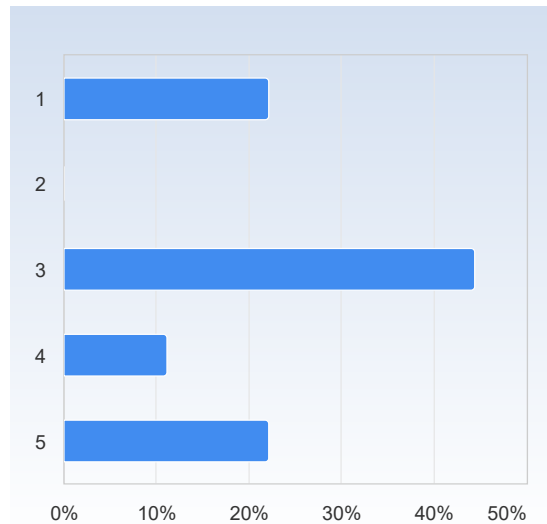
The course has increased my ability to read a mathematical text.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	2 (22.2%)
4	3 (33.3%)
5	3 (33.3%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to read a mathematical text.	3.8	1.3

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

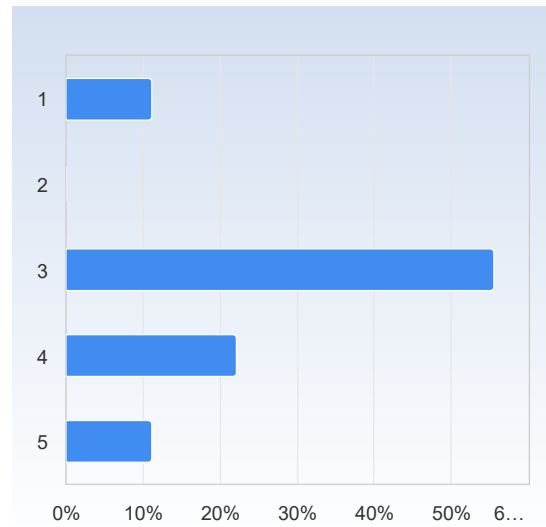
The course has increased my ability to communicate the subject in writing.	Number of responses
1	2 (22.2%)
2	0 (0.0%)
3	4 (44.4%)
4	1 (11.1%)
5	2 (22.2%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject in writing.	3.1	1.5

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

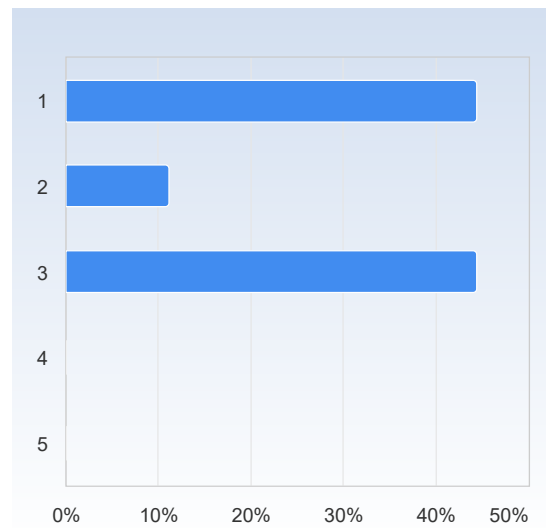
The course has increased my ability to communicate the subject orally.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	5 (55.6%)
4	2 (22.2%)
5	1 (11.1%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject orally.	3.2	1.1

The course has increased my ability to cooperate.

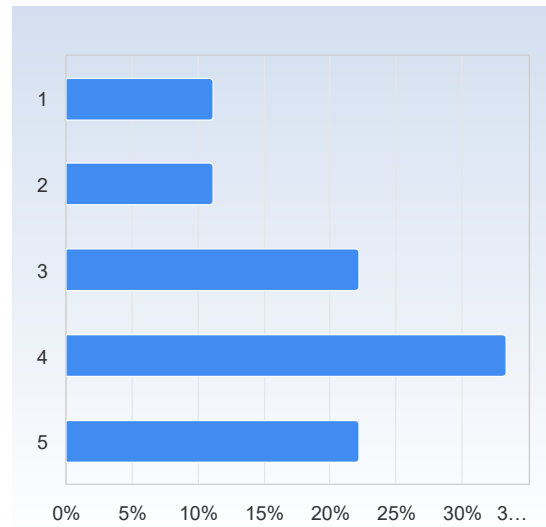
The course has increased my ability to cooperate.	Number of responses
1	4 (44.4%)
2	1 (11.1%)
3	4 (44.4%)
4	0 (0.0%)
5	0 (0.0%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to cooperate.	2.0	1.0

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

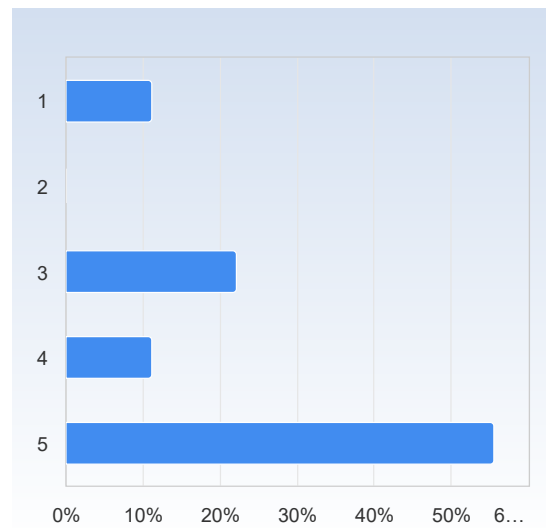
The course has increased my ability to search and process information.	Number of responses
1	1 (11.1%)
2	1 (11.1%)
3	2 (22.2%)
4	3 (33.3%)
5	2 (22.2%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to search and process information.	3.4	1.3

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

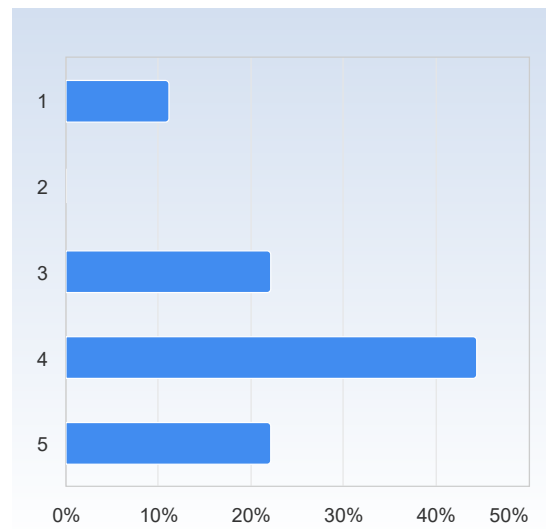
The course has increased my ability to analyze and solve problems.	Number of responses
1	1 (11.1%)
2	0 (0.0%)
3	2 (22.2%)
4	1 (11.1%)
5	5 (55.6%)
Total	9 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to analyze and solve problems.	4.0	1.4

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	1 (11.1%)
2	0 (0.0%)
3	2 (22.2%)
4	4 (44.4%)
5	2 (22.2%)
Total	9 (100.0%)



	Mean	Standard Deviation
As a result of this course, I feel confident about tackling unfamiliar problems.	3.7	1.2