

Centre for Mathematical Sciences Division of Mathematics and Numerical Analysis

Centre for Mathematical Sciences Faculty of Science

MATM12 Analytic Functions, Fall 2021

Course Information

Lecturer: Yacin Ameur Number of students: 38

34 newly registered and 4 re-registered. 5 students answered the course evaluation.

Examination

Oral examination: 19 students passed. **Written examination:** 19 students passed.

- Ordinary examination 15/12 2021: 19 students participated and 11 of them passed.
- Resit examination 10/1 2022: 9 students participated and 8 of them passed.

Final grades

In all, 19 students have got their final grade. 12 passed with distinction. 7 passed.

Course Evaluation

Summary of student's answers:

See course evaluation form.

Teachers' comments:

I think that this course should be replaced, probably by two courses, one elementary and one advanced. Indeed, a fair portion of the course is quite elementary and should be useful to the students when learning other courses. An elementary third-semester course of 7.5 credits could be based on either Gamelin's or Stein-Shakarchi's books, for example. It seems suitable to also offer an advanced course on complex analysis (my suggestion is 7.5 credits) and then I would probably recommend Stein-Shakarchi. In either case, my opinion is that the subject of complex analysis now enters the curriculum far to late. As for the present realization, it was sub-optimal for several reasons, having to do with covid (education had to be live-streamed, which creates some problems), plus the fact that I was unfamiliar with the course and the course literature, which I am in retrospect not very fond of. My attitude this year was largely to change as little as possible with respect to the preceding realization. If I would teach the course again, I would certainly introduce changes which reflect my own personal preferences. However, as I have already indicated, the best solution would probably be to break up the course in two smaller pieces, on different levels.

- Lectures were live-streamed via zoom until Nov 1, then on campus. I don't know the participation rate until Nov 1, since I didn't see the students. After Nov 1 the rate water town for a

while, but it picked up after a few weeks and by the end there were perhaps on average around 20 students participating in the lectures.

As for the seminars, experience showed that they were largely unnecessary (and boring), as the recommended exercises, according to the plan we followed, were largely routine problems which seem better suited for self-studies. Therefore, most of the seminars were canceled.

Changes from the previous course realisation:

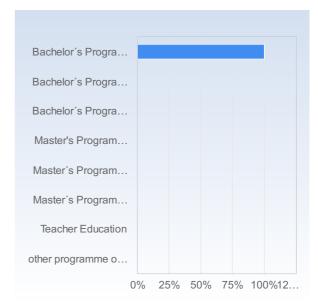
I included more material by the end, for example we covered Schwarz reflection and a detailed proof of the Riemann mapping theorem.

Suggestions for the next course realisation: See above.

MATM12 Analytic Functions 2021 Answer Count: 5

I have studied this course as part of

	Number of
I have studied this course as part of	responses
Bachelor's Programme in Mathematics	5 (100,0%)
Bachelor's Programme in Physics, Theoretical	
Physics, Astronomy	0 (0,0%)
Bachelor's Programme, other specialization	0 (0,0%)
Master's Programme in Mathematics	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	0 (0,0%)
Total	5 (100,0%)

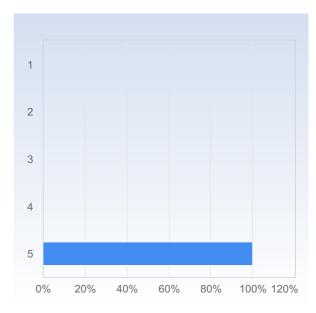


	Mean	Standard Deviation
I have studied this course as part of	1,0	0,0

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

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

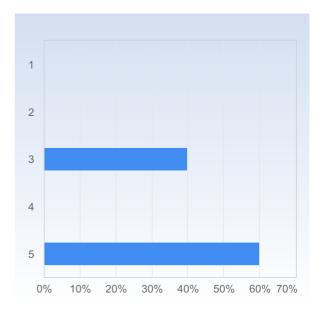
2.□My prior knowledge has been sufficient to	Number of
assimilate the contents of this course.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	0 (0,0%)
5	5 (100,0%)
Total	5 (100.0%)



	Mean	Standard Deviation
 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.

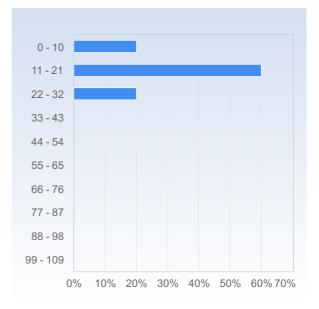
3. ☐ I have participated actively in the course.	Number of responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (40,0%)
4	0 (0,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
3. ☐ I have participated actively in the course.	4,2	1,1

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

Average number of hours spent in total on the	Number of
course per week (including scheduled activities):	responses
0 - 10	1 (20,0%)
11 - 21	3 (60,0%)
22 - 32	1 (20,0%)
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	5 (100.0%)



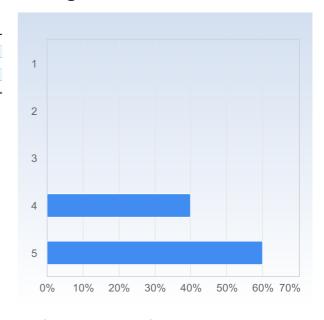
	Mean	Standard Deviation
Average number of hours spent in total on the course per week (including scheduled activities):	16.2	6.4

The course in general

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

The way the course was taught and organised suited me.

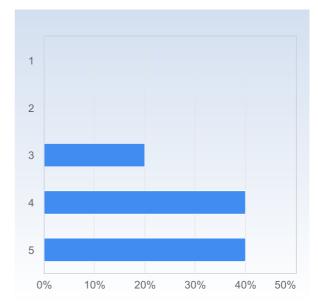
The way the course was taught and organised	Number of
suited me.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	2 (40,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The way the course was taught and organised suited me.	4,6	0,5

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

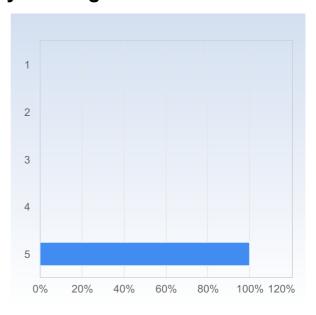
The number of teacher lead activities (lectures,	Number of
seminars etc.) has been satisfactory.	responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (20,0%)
4	2 (40,0%)
5	2 (40,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	4,2	0,8

The lectures were valuable for my learning.

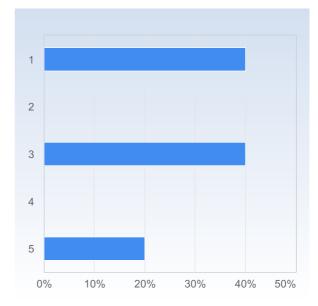
The lectures were valuable for my learning.	Number of responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	0 (0,0%)
5	5 (100,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The lectures were valuable for my learning.	5,0	0,0

The seminars were valuable for my learning.

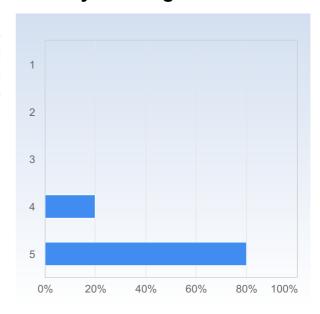
The seminars were valuable for my learning.	Number of responses
1	2 (40,0%)
2	0 (0,0%)
3	2 (40,0%)
4	0 (0,0%)
5	1 (20,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The seminars were valuable for my learning.	2,6	1,7

Studying on my own was valuable for my learning.

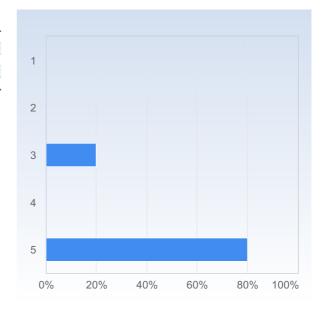
Studying on my own was valuable for my	Number of
learning.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	1 (20,0%)
5	4 (80,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
Studying on my own was valuable for my learning.	4,8	0,4

The course literature/material was a valuable learning resource.

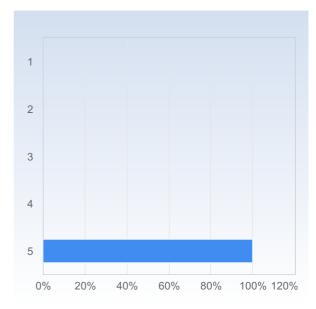
The course literature/material was a valuable	Number of
learning resource.	responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (20,0%)
4	0 (0,0%)
5	4 (80,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The course literature/material was a valuable learning resource.	4,6	0,9

The information I received before the course start was satisfactory.

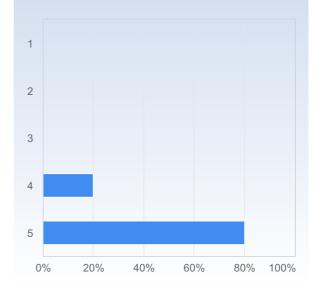
The information I received before the course start	Number of
was satisfactory.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	0 (0,0%)
5	5 (100,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The information I received before the course start was satisfactory.	5,0	0,0

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

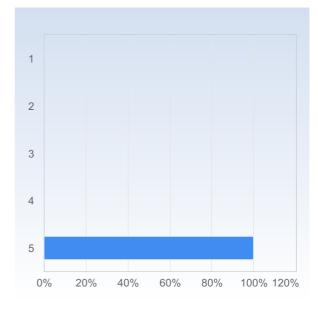
The communication with the teaching staff during	Number of
the course was good.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	1 (20,0%)
5	4 (80,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The communication with the teaching staff during the course was good.	4,8	0,4

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

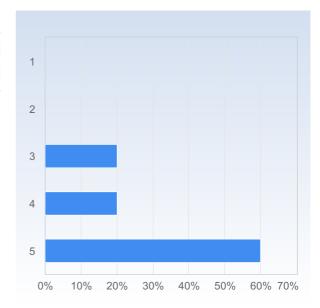
It was clear throughout the course what was	Number of
expected of me.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	0 (0,0%)
5	5 (100,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
It was clear throughout the course what was expected of me.	5,0	0,0

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

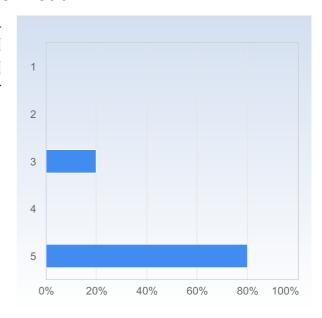
I have received valuable feedback from my	Number of
teacher/teachers during the course.	responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (20,0%)
4	1 (20,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
I have received valuable feedback from my teacher/teachers during the course.	4,4	0,9

The course had a reasonable workload.

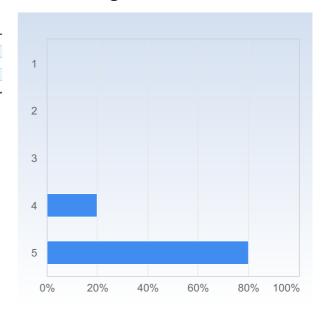
The course had a reasonable workload.	Number of responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (20,0%)
4	0 (0,0%)
5	4 (80,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The course had a reasonable workload.	4,6	0,9

The workload was evenly distributed throughout the course.

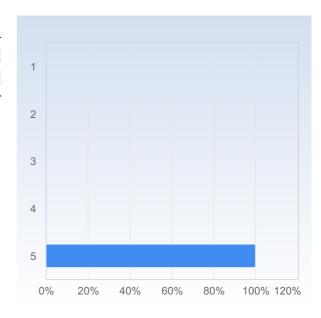
The workload was evenly distributed throughout	Number of
the course.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	1 (20,0%)
5	4 (80,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The workload was evenly distributed throughout the course.	4,8	0,4

The examination matched the contents and level of the course.

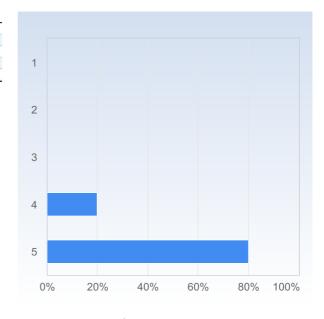
The examination matched the contents and level	Number of
of the course.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	0 (0,0%)
5	5 (100,0%)
Total	5 (100,0%)



	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	1 (20,0%)
5	4 (80,0%)
Total	5 (100,0%)



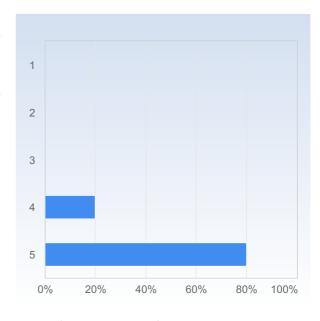
	IVICALI	Standard Deviation
Overall, I am satisfied with the course.	4,8	0,4

On the development of generic skills

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

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

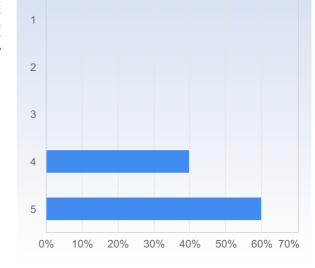
The course has increased my ability to read a	Number of
mathematical text.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	1 (20,0%)
5	4 (80,0%)
Total	5 (100,0%)



	iviean	Standard Deviation
The course has increased my ability to read a mathematical text.	4,8	0,4

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

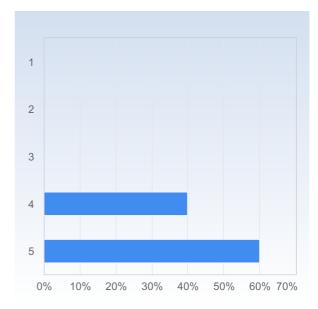
The course has increased my ability to	Number of
communicate the subject in writing.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	2 (40,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject in writing.	4,6	0,5

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

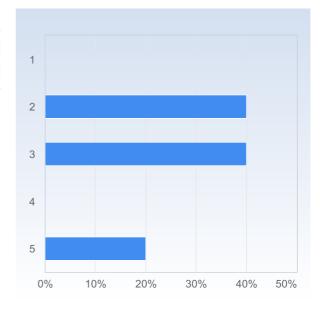
The course has increased my ability to	Number of
communicate the subject orally.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	2 (40,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The course has increased my ability to communicate the subject orally.	4,6	0,5

The course has increased my ability to cooperate.

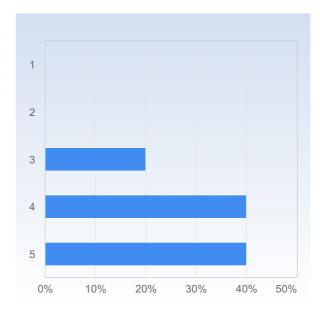
The course has increased my ability to	Number of
cooperate.	responses
1	0 (0,0%)
2	2 (40,0%)
3	2 (40,0%)
4	0 (0,0%)
5	1 (20,0%)
Total	5 (100 0%)



	Mean	Standard Deviation
The course has increased my ability to cooperate.	3,0	1,2

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

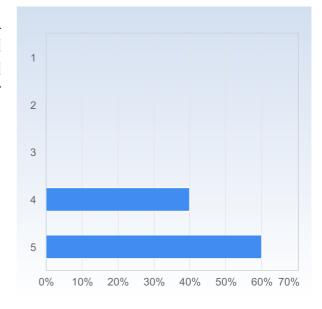
The course has increased my ability to search	Number of
and process information.	responses
1	0 (0,0%)
2	0 (0,0%)
3	1 (20,0%)
4	2 (40,0%)
5	2 (40,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The course has increased my ability to search and process information.	4,2	0,8

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

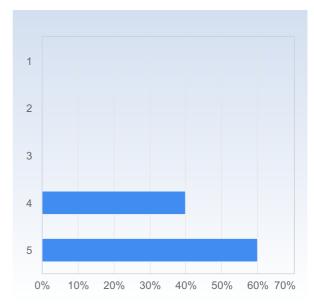
The course has increased my ability to analyze	Number of
and solve problems.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	2 (40,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
The course has increased my ability to analyze and solve problems.	4,6	0,5

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

As a result of this course, I feel confident about	Number of
tackling unfamiliar problems.	responses
1	0 (0,0%)
2	0 (0,0%)
3	0 (0,0%)
4	2 (40,0%)
5	3 (60,0%)
Total	5 (100,0%)



	Mean	Standard Deviation
As a result of this course, I feel confident about tackling unfamiliar problems.	4,6	0,5