## Course Analysis for MATA21 Analysis in One Variable, Autumn 2022

#### Course information

Lecturer: Jan-Fredrik Olsen

Teaching assistants: Thomas Munn, Giang To, Alex Bergman

#### **Number of students:**

89 newly registered and 26 re-registered.
36 students answered the course evaluation

#### **Examination**

**Ordinary examination (2023-01-09):** 61 out of 86 attending students passed. Out of these, 20 got the pass with distinction after the oral examination.

**Resit examination (2023-01-28)**: 3 out of 23 attending students passed. No students chose to do the oral examination.

#### Final grades:

In total, 64 students passed the course, out of which 20 got a pass with distinction.

#### Course evaluation

#### **Teachers comments:**

The course was taught in a hybrid style, with all lectures broadcast on Zoom. This term we organized the seminars differently. Instead of one session per lecture in group rooms, we did one session per week in the lecture hall. Ahead of the sessions, the students were given preparatory reading tasks and exercises. During the session, the students were to work on problems presented on the blackboard.

#### **Summary of course evaluation:**

Due to the change in the seminars, it is interesting to note that the seminars got exactly the same mean rating (3.7 out of 5) as in autumn 2022. Continuing the comparison, the rating for the feedback students got improved from 3.3 to 3.6, and the question on reasonable workload improved from 3.9 to 4.2.

The survey included an open ended question on what type of seminars they preferred (they could compare as the linear algebra course used the old style). Out of 27 responses, 14 were clearly positive to the new style and 4 clearly preferred the old. It is interesting to note that one student said they preferred the new type of seminars before the change of seminar teachers, as the previous teacher had a more proactive style.

From the open ended questions, the students seem to express satisfaction with the level and style of teaching. Some students request additional exercises in the course material and more worked solutions.

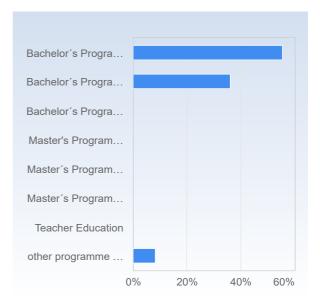
#### Suggestions for the next course realization:

- Keep the new seminar format, but develop it further to ensure that seminar teachers keep a pro-active style.

### MATA21 HT 2022 Course Survey Answer Count: 36

#### I have studied this course as part of

I have studied this course as part of	Number of responses
Bachelor's Programme in Mathematics	20 (55.6%)
Bachelor's Programme in Physics, Theoretical Physics, Astronomy	13 (36.1%)
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	0 (0.0%)
other programme or as stand alone course	3 (8.3%)
Total	36 (100.0%)

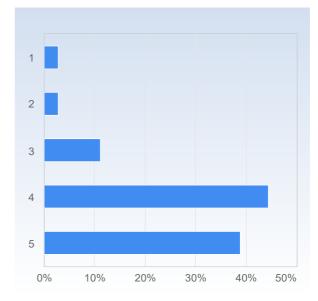


	Mean	Standard Deviation
I have studied this course as part of	1.9	1.9

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

#### 2. IMy prior knowledge has been sufficient to assimilate the contents of this course.

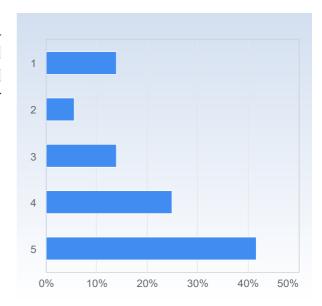
2. My prior knowledge has been sufficient to assimilate the	
contents of this course.	Number of responses
1	1 (2.8%)
2	1 (2.8%)
3	4 (11.1%)
4	16 (44.4%)
5	14 (38.9%)
Total	36 (100.0%)



	Mean	Standard Deviation
2. My prior knowledge has been sufficient to		
assimilate the contents of this course.	4.1	0.9

#### 3. Il have participated actively in the course.

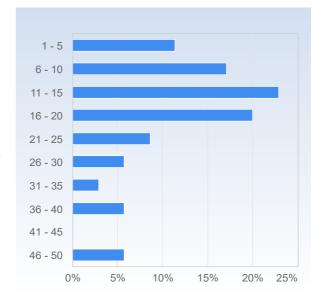
3. Il have participated actively in the course.	Number of responses
1	5 (13.9%)
2	2 (5.6%)
3	5 (13.9%)
4	9 (25.0%)
5	15 (41.7%)
Total	36 (100.0%)



	Mean	Standard Deviation
3. Il have participated actively in the course.	3.8	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
1 - 5	4 (11.4%)
6 - 10	6 (17.1%)
11 - 15	8 (22.9%)
16 - 20	7 (20.0%)
21 - 25	3 (8.6%)
26 - 30	2 (5.7%)
31 - 35	1 (2.9%)
36 - 40	2 (5.7%)
41 - 45	0 (0.0%)
46 - 50	2 (5.7%)
Total	35 (100.0%)

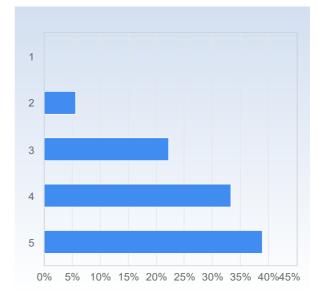


	Mean	Standard Deviation
Average number of hours spent in total on the		
course per week (including scheduled activities):	18.4	12.8

## The course in general On the scale 1-5 select the option that best matches your opinion:1= disagree completely $\to$ 3= partly agree $\to$ 5= agree completely

#### The way the course is taught and organised suits me.

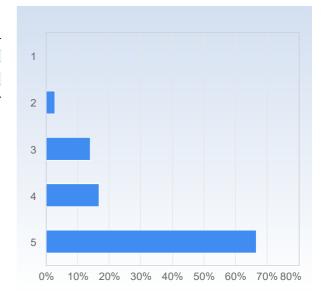
The way the course is taught and organised suits me.	Number of responses
1	0 (0.0%)
2	2 (5.6%)
3	8 (22.2%)
4	12 (33.3%)
5	14 (38.9%)
Total	36 (100.0%)



	Mean	Standard Deviation
The way the course is taught and organised		
suits me.	4.1	0.9

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

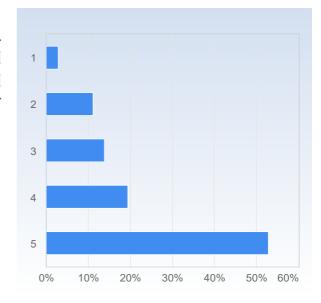
The number of teacher lead activities (lectures, seminars etc.) has been satisfactory.	Number of responses
1	0 (0.0%)
2	1 (2.8%)
3	5 (13.9%)
4	6 (16.7%)
5	24 (66.7%)
Total	36 (100 0%)



	Mean	Standard Deviation
The number of teacher lead activities (lectures,		
seminars etc.) has been satisfactory.	4.5	0.8

#### Attending lectures on campus has been valuable for my learning.

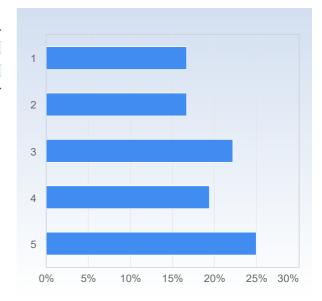
Attending lectures on campus has been valuable for my	
learning.	Number of responses
1	1 (2.8%)
2	4 (11.1%)
3	5 (13.9%)
4	7 (19.4%)
5	19 (52.8%)
Total	36 (100.0%)



	Mean	Standard Deviation
Attending lectures on campus has been		
valuable for my learning.	4.1	1.2

#### Watching recorded lectures has been valuable for my learning.

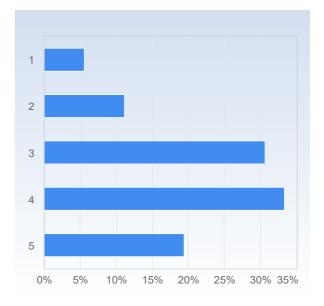
Watching recorded lectures has been valuable for my learning.	Number of responses
1	6 (16.7%)
2	6 (16.7%)
3	8 (22.2%)
4	7 (19.4%)
5	9 (25.0%)
Total	36 (100.0%)



	Mean	Standard Deviation
Watching recorded lectures has been valuable		
for my learning.	3.2	1.4

#### The workshops (the lectures for chapters 3 and 7) were valuable for my learning

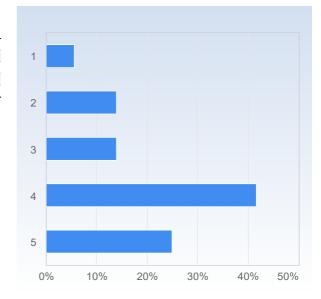
The workshops (the lectures for chapters 3 and 7) were valuable	
for my learning	Number of responses
1	2 (5.6%)
2	4 (11.1%)
3	11 (30.6%)
4	12 (33.3%)
5	7 (19.4%)
Total	36 (100.0%)



	Mean	Standard Deviation
The workshops (the lectures for chapters 3 and		
were valuable for my learning	3.5	1.1

#### Attending seminars on campus has been valuable for my learning.

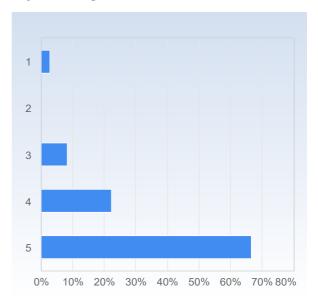
Attending seminars on campus has been valuable for my	
learning.	Number of responses
1	2 (5.6%)
2	5 (13.9%)
3	5 (13.9%)
4	15 (41.7%)
5	9 (25.0%)
Total	36 (100.0%)



	Mean	Standard Deviation
Attending seminars on campus has been		
valuable for my learning.	3.7	1.2

#### Studying on my own has been valuable for my learning.

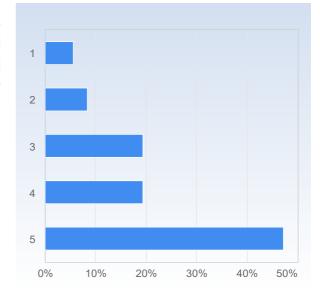
Studying on my own has been valuable for my learning.	Number of responses
1	1 (2.8%)
2	0 (0.0%)
3	3 (8.3%)
4	8 (22.2%)
5	24 (66.7%)
Total	36 (100.0%)



	Mean	Standard Deviation
Studying on my own has been valuable for my		
learning.	4.5	0.9

#### My mentor group has been valuable for my learning.

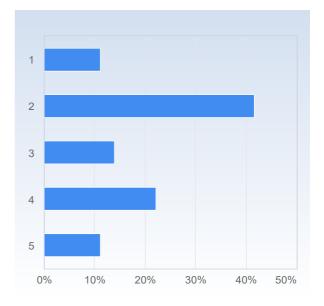
My mentor group has been valuable for my learning.	Number of responses
1	2 (5.6%)
2	3 (8.3%)
3	7 (19.4%)
4	7 (19.4%)
5	17 (47.2%)
Total	36 (100 0%)



	Mean	Standard Deviation
My mentor group has been valuable for my		
learning.	3.9	1.2

#### The use of Python by the lecturer during class has been valuable for my learning.

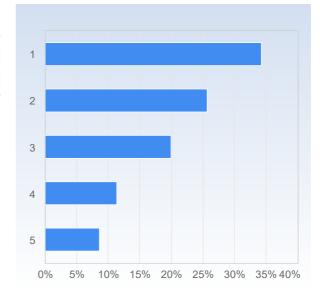
The use of Python by the lecturer during class has been valuable for my learning.	Number of responses
1	4 (11.1%)
2	15 (41.7%)
3	5 (13.9%)
4	8 (22.2%)
5	4 (11.1%)
Total	36 (100.0%)



	Mean	Standard Deviation
The use of Python by the lecturer during class		
has been valuable for my learning.	2.8	1.2

#### The use of Python on my own has been valuable for my learning.

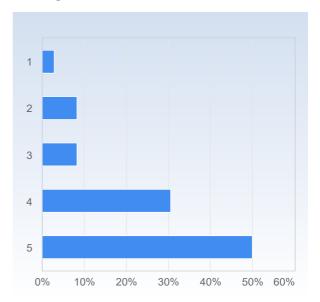
The use of Python on my own has been valuable for my	
learning.	Number of responses
1	12 (34.3%)
2	9 (25.7%)
3	7 (20.0%)
4	4 (11.4%)
5	3 (8.6%)
Total	35 (100.0%)



	Mean	Standard Deviation
The use of Python on my own has been		
valuable for my learning.	2.3	1.3

#### The course literature has been a valuable learning resource.

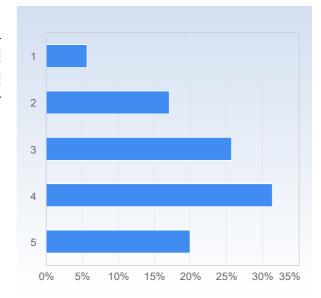
The course literature has been a valuable learning resource.	Number of responses
1	1 (2.8%)
2	3 (8.3%)
3	3 (8.3%)
4	11 (30.6%)
5	18 (50.0%)
Total	36 (100.0%)



	Mean	Standard Deviation
The course literature has been a valuable		
learning resource.	4.2	1.1

### The pre-recorded YouTube films (linked in book) have been a valuable learning resource.

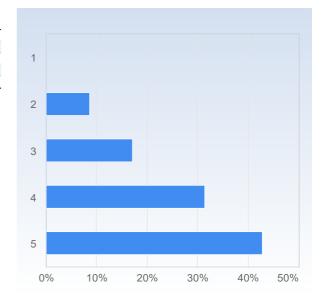
The pre-recorded YouTube films (linked in book) have been a valuable learning resource.	Number of responses
1	2 (5.7%)
2	6 (17.1%)
3	9 (25.7%)
4	11 (31.4%)
5	7 (20.0%)
Total	35 (100.0%)



	Mean	Standard Deviation
The pre-recorded YouTube films (linked in book)		
have been a valuable learning resource.	3.4	1.2

#### The information I received before the course start was satisfactory.

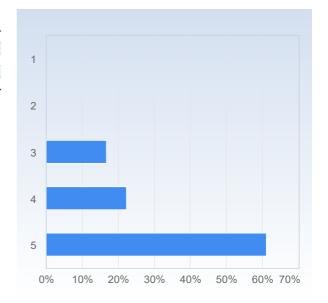
The information I received before the course start was satisfactory.	Number of responses
1	0 (0.0%)
2	3 (8.6%)
3	6 (17.1%)
4	11 (31.4%)
5	15 (42.9%)
Total	35 (100.0%)



	Mean	Standard Deviation
The information I received before the course start		
was satisfactory.	4.1	1.0

#### The communication with the teaching staff has been good.

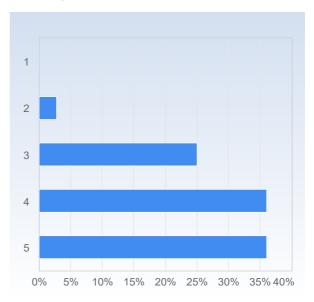
The communication with the teaching staff has been good.	Number of responses
1	0 (0.0%)
2	0 (0.0%)
3	6 (16.7%)
4	8 (22.2%)
5	22 (61.1%)
Total	36 (100.0%)



	Mean	Standard Deviation
The communication with the teaching staff has been		
good.	4.4	0.8

#### It has been clear throughout the course what is expected of me.

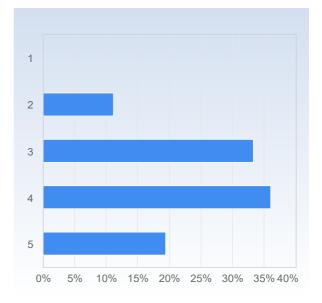
It has been clear throughout the	
course what is expected of me.	Number of responses
1	0 (0.0%)
2	1 (2.8%)
3	9 (25.0%)
4	13 (36.1%)
5	13 (36.1%)
Total	36 (100.0%)



	Mean	Standard Deviation
It has been clear throughout the course what is		
expected of me.	4.1	0.9

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

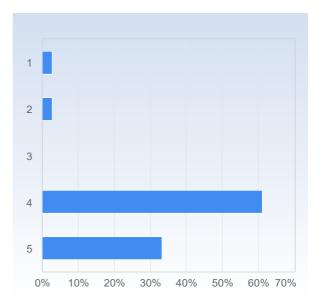
I have received valuable feedback from my teacher /teachers during the course.	Number of responses
1	0 (0.0%)
2	4 (11.1%)
3	12 (33.3%)
4	13 (36.1%)
5	7 (19.4%)
Total	36 (100 0%)



	Mean	Standard Deviation
I have received valuable feedback from my		
teacher/teachers during the course.	3.6	0.9

#### The course has had a reasonable workload.

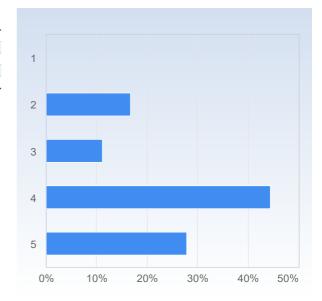
The course has had a reasonable	
workload.	Number of responses
1	1 (2.8%)
2	1 (2.8%)
3	0 (0.0%)
4	22 (61.1%)
5	12 (33.3%)
Total	36 (100.0%)



	Mean	Standard Deviation
The course has had a reasonable workload.	4.2	0.8

#### The workload has been evenly distributed throughout the course.

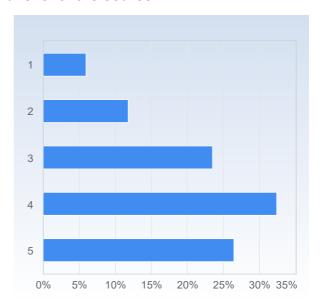
The workload has been evenly distributed throughout the course.	Number of responses
1	0 (0.0%)
2	6 (16.7%)
3	4 (11.1%)
4	16 (44.4%)
5	10 (27.8%)
Total	36 (100 0%)



	Mean	Standard Deviation
The workload has been evenly distributed		
throughout the course.	3.8	1.0

#### The examination matched the contents and level of the course.

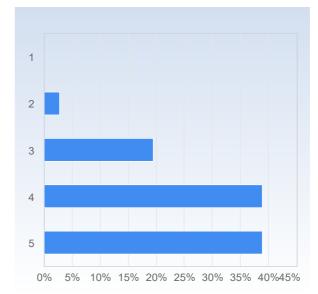
The examination matched the	
contents and level of the course.	Number of responses
1	2 (5.9%)
2	4 (11.8%)
3	8 (23.5%)
4	11 (32.4%)
5	9 (26.5%)
Total	34 (100.0%)



	Mean	Standard Deviation
The examination matched the contents and level		
of the course.	3.6	1.2

#### Overall, I am satisfied with the course.

Overall, I am satisfied with the	
course.	Number of responses
1	0 (0.0%)
2	1 (2.8%)
3	7 (19.4%)
4	14 (38.9%)
5	14 (38.9%)
Total	36 (100.0%)

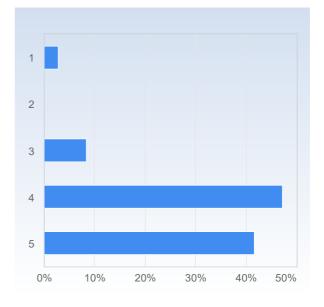


	Mean	Standard Deviation
Overall, I am satisfied with the course.	4.1	0.8

# On the development of generic skills On a scale 1-5 select the option that best matches your opinion:1= disagree completely $\to$ 3= partly agree $\to$ 5= agree completely

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

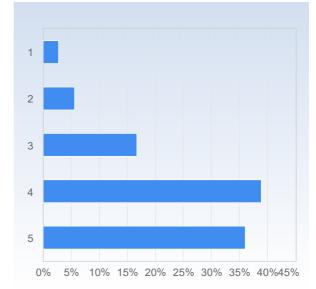
The course has increased my ability to read a mathematical text.	Number of responses
1	1 (2.8%)
2	0 (0.0%)
3	3 (8.3%)
4	17 (47.2%)
5	15 (41.7%)
Total	36 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to read a		
mathematical text.	4.2	0.8

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

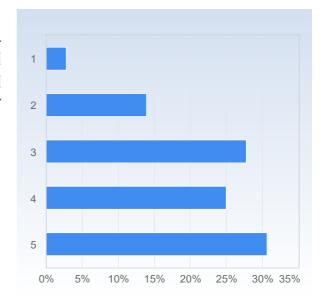
The course has increased my ability to communicate the subject	
in writing.	Number of responses
1	1 (2.8%)
2	2 (5.6%)
3	6 (16.7%)
4	14 (38.9%)
5	13 (36.1%)
Total	36 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to		
communicate the subject in writing.	4.0	1.0

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

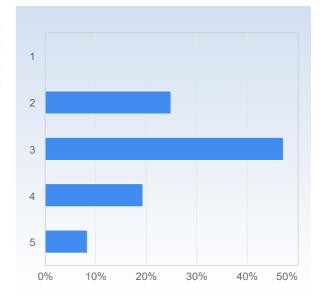
The course has increased my ability to communicate the subject	
orally.	Number of responses
1	1 (2.8%)
2	5 (13.9%)
3	10 (27.8%)
4	9 (25.0%)
5	11 (30.6%)
Total	36 (100.0%)



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

#### The course has increased my ability to cooperate.

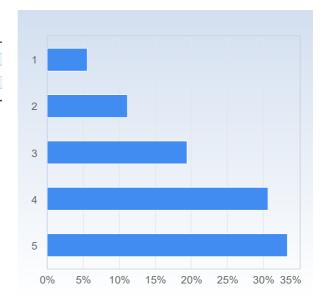
The course has increased my ability to cooperate.	Number of responses
1	0 (0.0%)
2	9 (25.0%)
3	17 (47.2%)
4	7 (19.4%)
5	3 (8.3%)
Total	36 (100 0%)



	Mean	Standard Deviation
The course has increased my ability to		
cooperate.	3.1	0.9

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

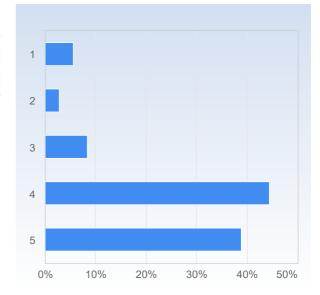
The course has increased my ability to search and process	
information.	Number of responses
1	2 (5.6%)
2	4 (11.1%)
3	7 (19.4%)
4	11 (30.6%)
5	12 (33.3%)
Total	36 (100.0%)



	Mean	Standard Deviation
The course has increased my ability to search		
and process information.	3.8	1.2

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

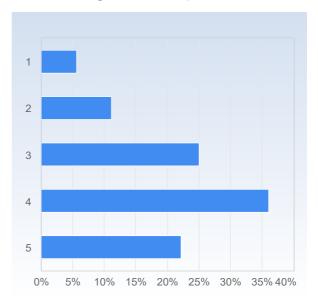
The course has increased my ability to analyze and solve problems.	Number of responses
1	2 (5.6%)
2	1 (2.8%)
3	3 (8.3%)
4	16 (44.4%)
5	14 (38.9%)
Total	36 (100 0%)



	Mean	Standard Deviation
The course has increased my ability to analyze		
and solve problems.	4.1	1.1

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

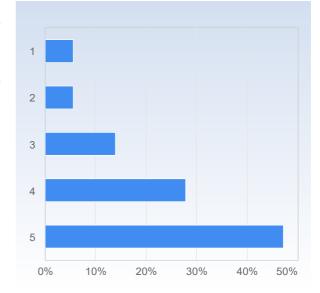
As a result of this course, I feel confident about tackling unfamiliar problems.	Number of responses
1	2 (5.6%)
2	4 (11.1%)
3	9 (25.0%)
4	13 (36.1%)
5	8 (22.2%)
Total	36 (100.0%)



	Mean	Standard Deviation
As a result of this course, I feel confident about		
tackling unfamiliar problems.	3.6	1.1

#### The course has stimulated my overall interest for mathematics.

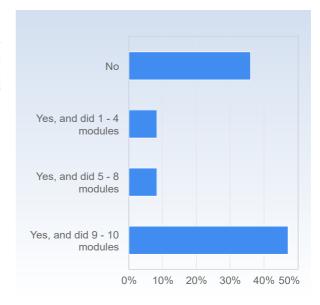
The course has stimulated my overall interest for mathematics.	Number of responses
1	2 (5.6%)
2	2 (5.6%)
3	5 (13.9%)
4	10 (27.8%)
5	17 (47.2%)
Total	36 (100 0%)



	Mean	Standard Deviation
The course has stimulated my overall interest for		
mathematics.	4.1	1.2

## Did you take the refresher course MNXA21 before starting this course?

Did you take the refresher course MNXA21 before starting	
this course?	Number of responses
No	13 (36.1%)
Yes, and did 1 - 4 modules	3 (8.3%)
Yes, and did 5 - 8 modules	3 (8.3%)
Yes, and did 9 - 10 modules	17 (47.2%)
Total	36 (100.0%)



	Mean	Standard Deviation
Did you take the refresher course MNXA21		
before starting this course?	2.7	1.4

## This term, we have organised the seminar in a new way (the old was more similar to that of the Linear Algebra course). Which of the two seminar formats do you think promotes your learning the most, and why?

This term, we have organised the seminar in a new way (the old was more similar to that of the Linear Algebra course). Which of the two seminar formats do you think promotes your learning the most, and why?

These ones, because otherwise you had just done the exercise beforehand.

This type of seminar. It becomes a lot more interactive and therefore more fun. The seminars also felt a lot more valuable when the exercises we specifically made to be discussed during the hour.

I strongly prefer this new format. It feels more interactive and less like just another lecture. It also gives us a chance to practice, discuss and ask questions about what we are leaning in a way the Linear Algebra format didn't really do.

The new way is better because getting hints to difficult problems and then tackeling them by myself was much better than just seeing the solution if those problems.

The current one, because we get to practice right after we've learnt the stuff, which is good

This new way, because you not only got the opportunity to ask questions about the assigned seminar questions but also had the chance to solve new problems (although we never really had enough time to do all questions on the sheets).

The new one. The seminar problems were sometimes a bit challenging, but you never had to get stuck for hours because you could always ask teachers or friends for help. I felt like I always left the seminars with having learnt something new, which wasn't the case in the seminars of linear algebra.

The Linear Algebra approach definitely promotes my learning the most.

The seminars in analysis felt a bit "rushed through" and we never had time to go through all the recommended exercises.

Also, the exercises we were give in class were usually so hard that you ended up not solving them.

Therefore I think the Linear Algebra approach is much better. Since that way you can see whether you understood the recommended exercises or not

Then you were given homework, with harder exercises, that you hade some time to solve. So, if it were my choice, go back to the Linear Algebra way of doing things.

I'm afraid I'm not too sure.

The analysis seminar format has been the most important and helpful resource. The PhD students and their we exercise solving or explaining lectures has been very helpful. The 2 hour math lab also was useful for preparing everything. A negative comment of the seminars for me is the change of teaching PhDs. We signed up to a room after checking all their PhDs way of teaching and choosing the one closest to ours. That was pointless since they left halfway through the course.

I liked the linear algebra style more because there we were given more time to prepare the problems before class and then I felt we were more active and more inline in when discussing the problems at the seminar, whereas the analysis seminars felt more like freestyling, which was fun when an interesting topic was brought but still not guaranteed.

Can't say anything, I was unable to partake in the linear algebra seminars so I can't compare the two formats.

I find the new way to suit me better, as I am not a morning person, and having seminars at 8 in the morning is a torture only Satan could have devised. Also, I prefer having seminars after the lecture, since then we can practice problems related to the stuff we learned during the lecture, without risking forgetting everything due to the passage of time.

I enjoyed Analysis seminars when the problems were actually solvable and the teacher would go around and ask each and every person if they have any other questions. That changed with the change of the seminar teacher. Then I enjoyed the Linear seminars more, as I would actually get something from them, as the problems were not too hard, you could prepare them beforehand and then ask any questions during the seminar.

N/A did not attend the seminars

Linear Algebra, this was too hard and didn't get much help from the leaders.

Sadly, I have not attended any linear algebra seminars, hence I cannot give an answer.

I did not attend the seminars enough to make a useful conclusion on this.

As I have not actively participated in the seminars, I can not say that I prefer one style over the other.

This one

The analysis seminars are better since you get to tackle problems you haven't seen before on the spot, so it forces you to think about it in more depth. And you're not left completely to your own devices like in an exam.

Barely attended any of them which I sort of regret now. At first neither of them felt very helpful but then it felt like I had been missing out because other students seemed more comfortable with the topics than me. I think it was more because of me having bad study discipline than the seminars being bad.

This way is better, it encourages you to attend even if you couldn't solve the questions and I feel like you also learn more when we're supposed to discuss problems in a group/pair bc you don't get stuck as much with more than one person to think

The one in this course, since you have to be prepared and think to participate and then you learn more. On the other hand the linear algebra ones are good when you didn't have time to do the exercises that week because everything gets explained.

The felt similar to the linear algebra ones, I'm not sure what you mean.

I liked the linear algebra more because i was more prepared for what was expected of me and we went over all problems together no opinion

#### What did you appreciate most with the course?

What did you appreciate most with the course?

The material, very good.

The recorded lectures. As someone likes to second guess their own notes and memory, having every lecture recorded made it so I could always double check.

Definitely how well the (incredibly well written) course literature was inter-woven with the lectures and the seminars. I feel like this wasn't really as well done in Linear Algebra and Pyhton, where the course literature seemed more like an additional aid instead of actually being actively used throughout the course.

Seminars.

how much support there was

That we also got to learn where the important theorems came from, i.e. the proofs, which I think is also the most challenging part.

The seminars and the lectures. I especially liked that the lectures often covered proofs that were left as exercises in the book.

That it increased my mathematical ability.

Probably the professors. They're very well structured and listen to feedback.

JF is the most valuable thing about this course.

Other than that the teaching method, the schedule of the course and the overall organisation is impeccable.

I really like the proofs and the more theoretical aspect

The professor, I feel that he has a great mindset towards teaching and extensive experience in it.

I liked most of the aspects of the course, but if I had to choose, probably the lecture notes. They were really well written and easy to understand and a pleasure to read.

That Jan-Fredrik is a chill guy who explains the topics really well and intuitively, and also in a fun way.

I appreciated that the course highlighted more of the techinical aspects of the material than I expected.

Chapters 9 and above. I found the proofs concerning important theorems/results in calculus to be incredibly interesting.

The lecture notes are top-notch and have just the right amount of problems.

In general, I think that the teaching was very good. The explanations were clear, and I think that focus was placed on the parts relevant for the examination. The examples were also well-chosen in this respect.

I also appreciated the effort to offer a challenge to students at various levels, both in offering challenges during the seminars, and also the seminar teachers discussing certain topics outside the scope of the course—especially in the earlier chapters.

I really appreciated the mentor meetings and the frequency of seminars in the course.

I appreciate that the course showed us how things work, and not just how to use them.

The lectures! They were always fun to attend, and it felt like you genuinely cared about making the experience as enjoyable as possible for us. I think I can speak for everyone when I say that your humor improved the lectures by orders of magnitude. You're also very attentive to when we understand and when we don't. Keep being you  $\mathbb I$ 

Lecture recording + pre-recorded videos

Jan-fredriks lectures, he really tried to make sure that he got everyone with him in what he was saying and I really appreciated that. Also having the mock-exams before the exams were very nice to get a feeling for what mistakes to easily avoid and to make you feel more comfortable when taking the actual exam.

The lectures, Jan-Fredrick is very good at explaining stuff.

The professor and his way of teaching. Jan-Fredrik made the course more fun:)

The teacher made even scary topics seem pleasant and the lectures have been actually enjoyable

The links within the book to YouTube videos for complicated concepts and lectures.

#### What do you think should be improved?

What do you think should be improved?

Not sure, don't think show.

Not much really.

Though I assume this is more of an exception than the rule, compared to previous exams, a lot of the exercises during this semester's final exam felt like they didn't really match up as well with how the content has been presented throughout the course.

Introducing examination-type tasks earlier as preparation for seminars/lectures.

The exams (the midterm, the final, as well as the past exams) could have been more carefully reviewed to avoid mistakes and resulting confusion for students during the exam.

I think Don't Panic should provide more answers to the exercises. I understand the reasoning behind not including solutions to proof exercises, but I believe that exercises with concrete answers (such as numbers, expressions, short explanations etc) should be included. Sometimes you cannot check the answers by yourself easily. It's not very reassuring to do a lot of exercises without knowing if you're on the right track or messing up completely.

The seminars. They sometimes felt like we skipped "the basics" and went straight to the very hard questions.

The only think I REALLY think the professors should consider is giving out more mathematical tasks in the book. I find it extremely hard to learn without seeing a good amount of tasks and exmaples. This makes it easier for me to solve future tasks since I can this way connect theory and practice together. I had to retake this course twice because I was very much not used to the fewer amount of tasks and how to solve them than there was in High School.

Seminar teachers should remain until at least the end of the semester. It is difficult to readapt to a new TA when u are halfway through exams and almost at the end of the course. Personally the new way of seminar teaching was not helpful and I ended up having to change my way of studying 1 month or so before the exam. Highly unappreciated

I think there should be more focus on the analysis part rather than the calculus part, however, I still understand that it is a very difficult distribution.

I did not partake enough to be able to give a good answer.

Throughout the end of the course, the number of exercises during the lecture kind of steadily decreased, with us focusing more and more on proofs. In my opinion, it could do well trying to squeeze in an exercise or two here and there during this time too.

Don't change the seminar teacher in the middle of the course. Also the difficulty of the exam was way higher than the exams from the previous years (though they were quite nice during grading).

Mentor groups is not my preferred method of learning. It would be preferrable if being part of one was optional.

the exam was way to hard, much harder than any previous exam. I did all previous exams without any problem but this exam I passed without marginal.

Some of the segments of 'Don't Panic' felt unnecessarily overdetailed while others were underexplained (here, I am mainly talking about the overabundance of examples in chapter 13 and a somewhat lacking amount of information regarding chapter 12).

One or two more assignments. The assignments in Linear Algebra 1 helped me stay more motivated throughout the course.

I think that the final examination was conducted badly. Considering that there was a misprint, and some slightly ambiguous formulations, it would be beneficial if there was either a teacher or TA in the room for at least a majority of the exam. Moreover, as this is our first oral exam for most, I think it would be beneficial if some more time was spent during the lectures to speak about good practices to prepare for the exam. Finally, I think the percentage conversion of the exam scores provided unnecessary confusion. It would have been clearer from the beginning to just say that the midterm is worth 3 points, the written exam 30 points, and the oral exam 10 points.

The final couple weeks should not have been spread so thinly. The material could have been compressed enough to not limit Christmas break, and the exam could have been placed before the break for the same reason.

Maybe more clarity about what we were expected to know about. I was blindsided by the arc length stuff, and I didn't feel like that was communicated to be important. If it was, then that's my fault and you can ignore this criticism.

I think that the book ("Don't panic) can be more formal in some of the proofs and explanations, but considering the fact that course is not only for Mathematics Student, I think it's ok

I cannot come up with anything right now

Not going over-time with lectures, please!

For me the course book has been hard to read. It takes a lot of time and effort, quite a lot of time to 'get to the point' (very sharp contrast to linear algebra course book), quite a lot of cross-referencing; thus the book has been a bit overwhelming to me.

That said, probably the biggest issue for me was the lack of answers to exercises; For, me, it is quite hard to learn when I do not have access to knowing whether the excercise I have just done was solved correctly or not (in the course book the solutions are given only to every other excercise, and given the amount of exercises in total, one becomes very disincentivised to use course book exercises as a practice). At least having answers to exam exercises at the end of each chapter could be an improvement - I think it can aid those like me, who need some 'benchmark' to know if I have understood the concept in the chapter or not. Otherwise it feels as if I'm drowning in theory without being able to understand it on a practical example; I would even say that the exercises provided without answers (which are a big portion of the book) have been completely useless to my learning. And I think that this is the reason why I have kind of used past papers as a primary method for practice and even learning new concepts (that said exercises completed during lectures and seminars were useful too).

#### 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.)?
Nope (as a queer person).
Nope
No
no
No.
No
No.
Absolutely not. although since the course is taught in English any questions asked in swedish could be repeated in English. It would make us feel more included and solve some questions that maybe we hadn't thought of or didn't want to ask.
No.
Not really.
No
no
No.
No.
No, of course not. I liked it when you anthropomorphized equations and called them "he". I think people complaining about that just don't have anything better to complain about.
No
No
No

What further opinions about the course would you like to share?
What further opinions about the course would you like to share?
Jan-Fredrik is an excellent lecturer.
Both Jan-Fredrik and most of the seminar teachers are very pedagogical, which really helps. Keep up the good work!
N/A
No
Not really.
Jan Frederick is a blessing to Math and to this university. Thank you sweet Norwegian.
None
All I have to say is that it was really good.
I have greatly enjoyed this course. I believe I have learnt a lot about mathematics by studying MATA21 and I am definitely far more interested in mathematics now than I have been before taking this course.
Jan-Fredrik is funny. This is good.
I can appreciate the thought of teaching "calculus" and "real analysis" at the same time, but I think that it was limiting in practice. While the text and lectures cover both the computational parts, and the formal parts, I don't think one gains the mathematical maturity and experience that a strictly proof-oriented course gives. Especially considering that the exams are entirely focused on computations, so there is no real motivation to learn the more theoretical aspects of the topic.
Thanks for caring. I didn't have many opportunities to talk to you personally, but the few times it happened it felt like you genuinely tried to care and be interested. Thanks II
I really liked it

The lectures were very engaging; and overall I feel like Jan-Fredrik put a lot of effort in this course, and I am really happy this was my introduction to mathematics at university level. I always felt really bad during lectures for not being able to be more engaged and answering questions (as due to personal circumstances I was a bit behind frequently), as I was worried it showed my lack of enthusiasm for the course; and I think that a lot of students felt the same.

The mentor groups were very helpfull I think that my mentor was absolutely amazing (William).

Finally, I would also like to add a note about the new structure of mixing MATA22, MATA21 and NUMA01 courses this semester. I find (although there are some advantages to it), that it makes it a bit harder to follow the material in analysis course, as there are quite large gaps between the study blocks: I might have forgotten some content before the next lecture block, so I think that learning is a bit less efficient this way (perhaps it is extremely subjective though, so I think this aspect should be looked into only if a number of other students feel the same).