

Course Analysis for MATB24 Linear Analysis, Spring 2023

Course Information

Lecturer: Anders Olofsson Teaching assistants: 0 Number of students:

15 newly registered and 18 re-registered. 7 students answered the course evaluation

Examination

Oral examination: 15 students passed. **Written examination:** 15 students passed.

- Ordinary examination 15/3 2023: 21 students participated and 11 of them passed.
- Resit examination 15/4 2023: 9 students participated and 4 of them passed.

Final grades:

In all, 15 students, including 5 re-registered students, have got their final grade. 9 passed with distinction. 6 passed.

Course Evaluation

Summary of student's answers:

Positive answers on the course evaluation form, but few.

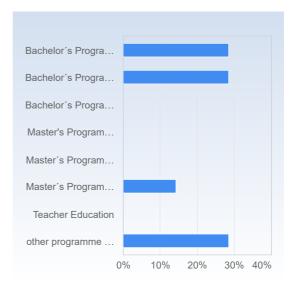
Teachers' comments: Post corona situation with few students. Traditional teaching and written exam. Emphasis on important basic undergraduate mathematics material.

Suggestions for the next course realisation: Stick to a traditional format of teaching and written examination. Education suffers from corona issues.

Linear Analysis, Spring 2023 Answer Count: 7

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 (28,6%) |
| Bachelor's Programme in Physics, Theoretical Physics, Astronomy | 2 (28,6%) |
| 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 | 1 (14,3%) |
| Teacher Education | 0 (0,0%) |
| other programme or as stand alone course | 2 (28,6%) |
| Total | 7 (100,0%) |

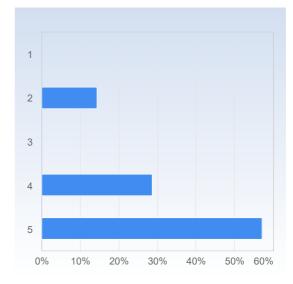


| | Mean | Standard Deviation |
|---------------------------------------|------|--------------------|
| I have studied this course as part of | 4,0 | 3,2 |

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.

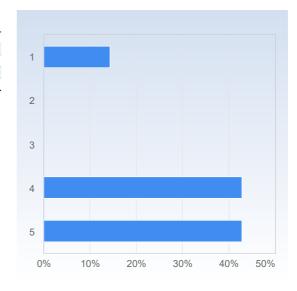
| 2. My prior knowledge has been sufficient to assimilate the | |
|---|---------------------|
| contents of this course. | Number of responses |
| 1 | 0 (0,0%) |
| 2 | 1 (14,3%) |
| 3 | 0 (0,0%) |
| 4 | 2 (28,6%) |
| 5 | 4 (57,1%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| 2. My prior knowledge has been sufficient to | | |
| assimilate the contents of this course. | 4,3 | 1,1 |

3. Il have participated actively in the course.

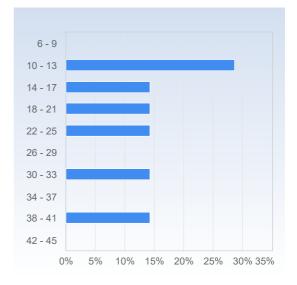
| 3.II have participated actively in | |
|------------------------------------|---------------------|
| the course. | Number of responses |
| 1 | 1 (14,3%) |
| 2 | 0 (0,0%) |
| 3 | 0 (0,0%) |
| 4 | 3 (42,9%) |
| 5 | 3 (42,9%) |
| Total | 7 (100,0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| 3. Il have participated actively in the course. | 4.0 | 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 |
| 6 - 9 | 0 (0,0%) |
| 10 - 13 | 2 (28,6%) |
| 14 - 17 | 1 (14,3%) |
| 18 - 21 | 1 (14,3%) |
| 22 - 25 | 1 (14,3%) |
| 26 - 29 | 0 (0,0%) |
| 30 - 33 | 1 (14,3%) |
| 34 - 37 | 0 (0,0%) |
| 38 - 41 | 1 (14,3%) |
| 42 - 45 | 0 (0,0%) |
| Total | 7 (100,0%) |



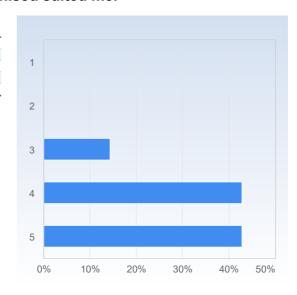
| | Mean | Standard Deviation |
|---|------|--------------------|
| Average number of hours spent in total on the | | |
| course per week (including scheduled activities): | 21,6 | 11,0 |

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 was taught and organised suited me.

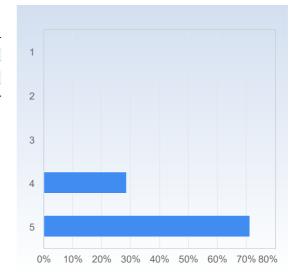
| The way the course was taught | |
|-------------------------------|---------------------|
| and organised suited me. | Number of responses |
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 3 (42,9%) |
| 5 | 3 (42,9%) |
| Total | 7 (100,0%) |
| | |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The way the course was taught and organised suited me. | 4,3 | 0,8 |

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

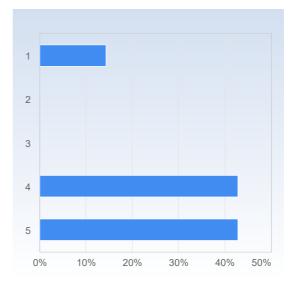
| The number of teacher lead activities (lectures, seminars etc.) has been satisfactory. | Number of responses |
|--|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 0 (0,0%) |
| 4 | 2 (28,6%) |
| 5 | 5 (71,4%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The number of teacher lead activities (lectures, | | |
| seminars etc.) has been satisfactory. | 4,7 | 0,5 |

The lectures were valuable for my learning.

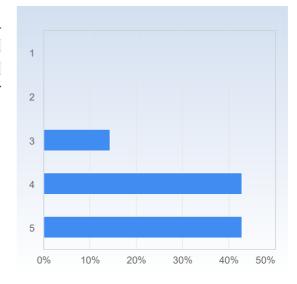
| The lectures were valuable for my learning. | Number of responses |
|---|---------------------|
| 1 | 1 (14,3%) |
| 2 | 0 (0,0%) |
| 3 | 0 (0,0%) |
| 4 | 3 (42,9%) |
| 5 | 3 (42,9%) |
| Total | 7 (100,0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| The lectures were valuable for my learning. | 4.0 | 1.4 |

The seminars were valuable for my learning.

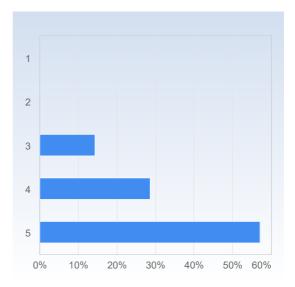
| The seminars were valuable for my learning. | Number of responses |
|---|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 3 (42,9%) |
| 5 | 3 (42,9%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| The seminars were valuable for my learning. | 4,3 | 0,8 |

Studying on my own was valuable for my learning.

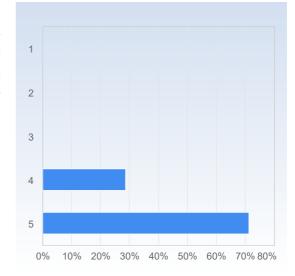
| Studying on my own was valuable for my learning. | Number of responses |
|---|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 2 (28,6%) |
| 5 | 4 (57,1%) |
| Total | 7 (100.0%) |



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

The course literature/material was a valuable learning resource.

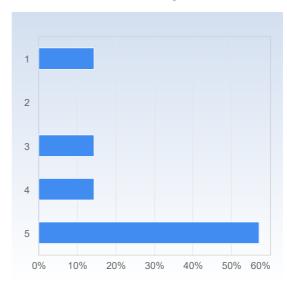
| The course literature/material was a valuable learning | |
|--|---------------------|
| resource. | Number of responses |
| 1 | 0 (0,0%) |
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| 4 | 2 (28,6%) |
| 5 | 5 (71,4%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| The course literature/material was a valuable | | |
| learning resource. | 4,7 | 0,5 |

The information I received before the course start was satisfactory.

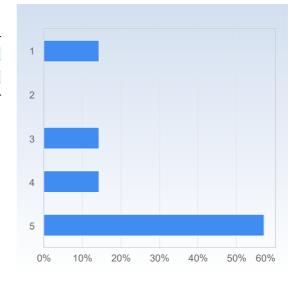
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| 5 | 4 (57,1%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The information I received before the course start | | |
| was satisfactory. | 4,0 | 1,5 |

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

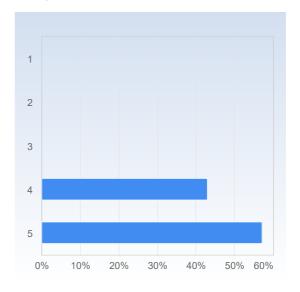
| The communication with the teaching staff during the course was | |
|---|---------------------|
| good. | Number of responses |
| 1 | 1 (14,3%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 1 (14,3%) |
| 5 | 4 (57,1%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The communication with the teaching staff during | | |
| the course was good. | 4,0 | 1,5 |

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

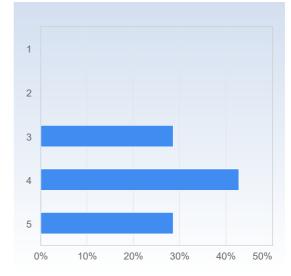
| It was clear throughout the | |
|---------------------------------|---------------------|
| course what was expected of me. | Number of responses |
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 0 (0,0%) |
| 4 | 3 (42,9%) |
| 5 | 4 (57,1%) |
| Total | 7 (100,0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| It was clear throughout the course what was | | |
| expected of me. | 4,6 | 0,5 |

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

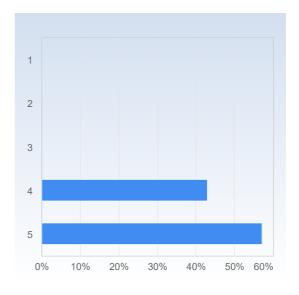
| I have received valuable feedback from my teacher /teachers during the course. | Number of responses |
|--|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 2 (28,6%) |
| 4 | 3 (42,9%) |
| 5 | 2 (28,6%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| I have received valuable feedback from my | | |
| teacher/teachers during the course. | 4,0 | 0,8 |

The course had a reasonable workload.

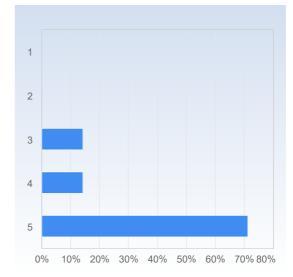
| The course had a reasonable | |
|-----------------------------|---------------------|
| workload. | Number of responses |
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 0 (0,0%) |
| 4 | 3 (42,9%) |
| 5 | 4 (57,1%) |
| Total | 7 (100,0%) |



| | Mean | Standard Deviation |
|---------------------------------------|------|--------------------|
| The course had a reasonable workload. | 4,6 | 0,5 |

The workload was evenly distributed throughout the course.

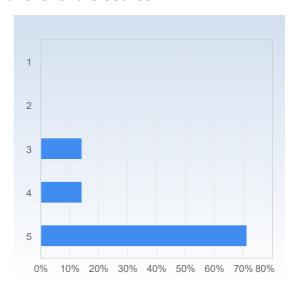
| The workload was evenly distributed throughout the course. | Number of responses |
|--|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 1 (14,3%) |
| 5 | 5 (71,4%) |
| Total | 7 (100 0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The workload was evenly distributed throughout | 4.6 | 0.0 |
| the course. | 4,0 | 0,0 |

The examination matched the contents and level of the course.

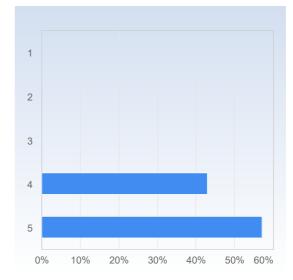
| The examination matched the contents and level of the course. | Number of responses |
|---|---------------------|
| 1 | 0 (0,0%) |
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| 3 | 1 (14,3%) |
| 4 | 1 (14,3%) |
| 5 | 5 (71,4%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The examination matched the contents and level | | |
| of the course. | 4,6 | 0,8 |

Overall, I am satisfied with the course.

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|--|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
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| 5 | 4 (57,1%) |
| Total | 7 (100.0%) |



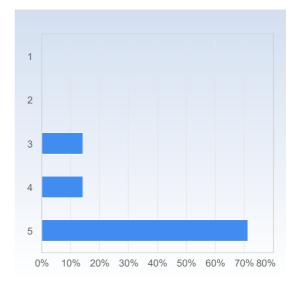
| | Mean | Standard Deviation |
|--|------|--------------------|
| Overall, I am satisfied with the course. | 4,6 | 0,5 |

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.

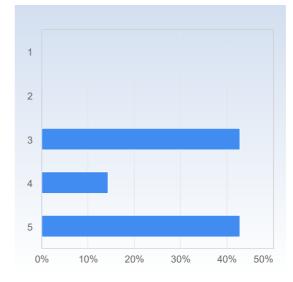
| The course has increased my ability to read a mathematical text. | Number of responses |
|--|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 1 (14,3%) |
| 5 | 5 (71,4%) |
| Total | 7 (100,0%) |



| | Mean | Standard Deviation |
|---|------|--------------------|
| The course has increased my ability to read a | | |
| mathematical text. | 4,6 | 0,8 |

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

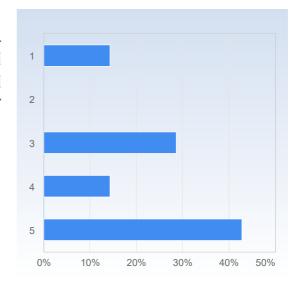
| The course has increased my ability to communicate the subject | |
|--|---------------------|
| in writing. | Number of responses |
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 3 (42,9%) |
| 4 | 1 (14,3%) |
| 5 | 3 (42,9%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The course has increased my ability to communicate the subject in writing. | 4.0 | 1.0 |
| communicate the subject in writing. | ₹,0 | 1,0 |

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

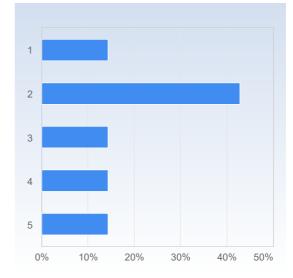
| The course has increased my ability to communicate the subject | |
|--|---------------------|
| orally. | Number of responses |
| 1 | 1 (14,3%) |
| 2 | 0 (0,0%) |
| 3 | 2 (28,6%) |
| 4 | 1 (14,3%) |
| 5 | 3 (42,9%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The course has increased my ability to | | |
| communicate the subject orally. | 3,7 | 1,5 |

The course has increased my ability to cooperate.

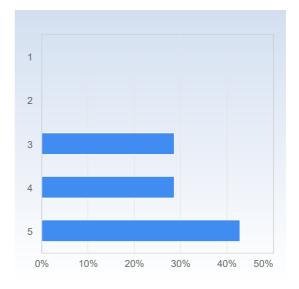
| The course has increased my ability to cooperate. | Number of responses |
|---|---------------------|
| 1 | 1 (14,3%) |
| 2 | 3 (42,9%) |
| 3 | 1 (14,3%) |
| 4 | 1 (14,3%) |
| 5 | 1 (14,3%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The course has increased my ability to | | |
| cooperate. | 2,7 | 1,4 |

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

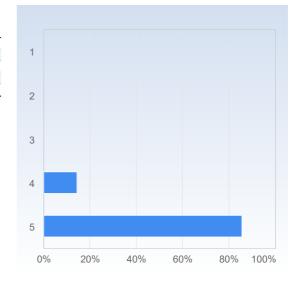
| Number of responses |
|---------------------|
| 0 (0,0%) |
| 0 (0,0%) |
| 2 (28,6%) |
| 2 (28,6%) |
| 3 (42,9%) |
| 7 (100,0%) |
| |



| | Mean | Standard Deviation |
|---|------|--------------------|
| The course has increased my ability to search | | |
| and process information. | 4,1 | 0,9 |

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

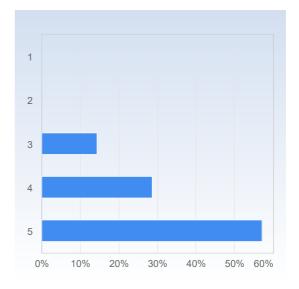
| The course has increased my ability to analyze and solve problems. | Number of responses |
|--|---------------------|
| 1 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 0 (0,0%) |
| 4 | 1 (14,3%) |
| 5 | 6 (85,7%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| The course has increased my ability to analyze | | |
| and solve problems. | 4,9 | 0,4 |

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 | 0 (0,0%) |
| 2 | 0 (0,0%) |
| 3 | 1 (14,3%) |
| 4 | 2 (28,6%) |
| 5 | 4 (57,1%) |
| Total | 7 (100.0%) |



| | Mean | Standard Deviation |
|--|------|--------------------|
| As a result of this course, I feel confident about | | |
| tackling unfamiliar problems. | 4,4 | 0,8 |

What did you appreciate most with the course?

What did you appreciate most with the course?

The contents of the syllabus and availability of scheduled activities

Anders is a fantastic teacher. You never get tired during the course.

As a physics student, I would highly recommend this course to fellow classmates, since it explains the inner workings of many mathematical methods applied in physics e.g. convergence, infinite series, infinite sequences, Fourier series, L-2 theory and Fourier Transform. Anders Vretblad's book is has a wonderful way to map out and explain important theorems in a compact fashion. I would personally add chapter 3 as a bonus, since I find the Z-transform and Laplace Transform to be equally as essential to physicists. I realise that the course is already fully swamped in terms of course content, but I would stress chapter 3 of Vretblad's book as additional material.

Superb lectures. Interesting examples.

The lectures were very clear and well-structured. The lecturer made sure everybody followed the arguments and reminded us of results from previous courses whenever relevant.

The lecturer and the contents of the course.

What do you think should be improved?

What do you think should be improved?

More solutions for the exercises. Attending seminars is not always possible, especially with schedule clashes, which means solutions or suggested solutions should be made available to more questions

Nothing

I would have liked to have some important announcements been communicated via Canvas as well.

I will take this opportunity to also exercise some self-criticism. I feel that I had a time management issue with regards to the course content (I could be an isolated case, of course). Hence, I feel that the course could benefit of having 2-3 compulsory/optional assignments which allows for some additional feedback and checkpoints for the students. This may be something one should do a survey/poll on. I personally find compulsory assignments to be extremely beneficial when it comes to evaluating one's understanding of concepts.

Thank you for the very interesting course
nothing.

Nothing in particular.

It would be good with one source to cover the course but that can be hard I'm sure.

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, e | tc.)? |
|--|-------|
| No | |
| Never. | |
| no. | |
| No | |
| No! | |