



LUND UNIVERSITY
Faculty of Science

Centre for Mathematical Sciences
Division of Mathematics and Numerical
Analysis

Course Analysis for Course NUMA01 Computational Programming with Python, Spring 2022

Course Information

Lecturer: Claus Führer

Teaching assistants: several

Number of students:

67 newly registered and 16 re-registered.

12 students answered the course evaluation, 11 of them are enrolled on Bachelor's program in physics

Examination

Project: 52 students passed.

Homework examination: 52 students passed.

Final grades:

In all, 52 students, including 7 re-registered students, have got their final grade.

- passed with distinction. (*this grade doesn't apply for this course*)

52 passed.

Course Evaluation

Summary of student's answers:

Most of those who answered seem to have a positive view on the course, its content and the way it was taught. But there are clear negative statements about the subject at all ("programming is not my topic") and the pedagogic used in this course.

Teachers' comments:

This course suffers from a relatively low participation rate in the bi-weekly practical exercises. It seems that the subject competes with the more traditional "hard-core" subjects.

Changes from the previous course realisation:

no changes.

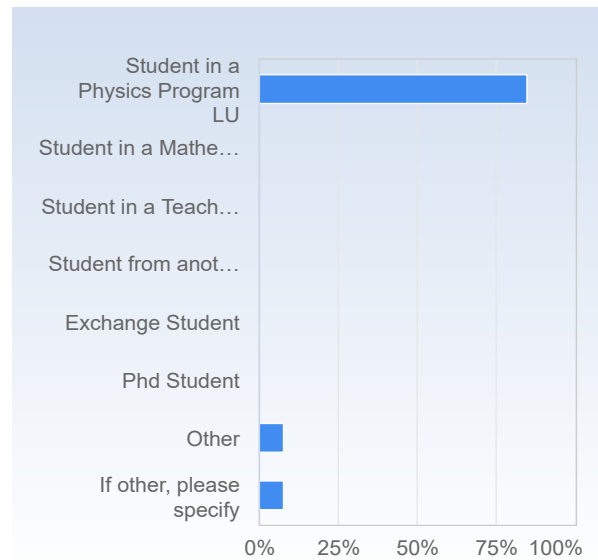
Suggestions for the next course realisation: The next realisation will start earlier and is more parallel to the basic course in calculus. This is due a suggestion from other teachers.

Computational Programming with Python, Spring 2022

Respondents: 96
Answer Count: 12
Answer Frequency: 12.50%

Your role in the course?

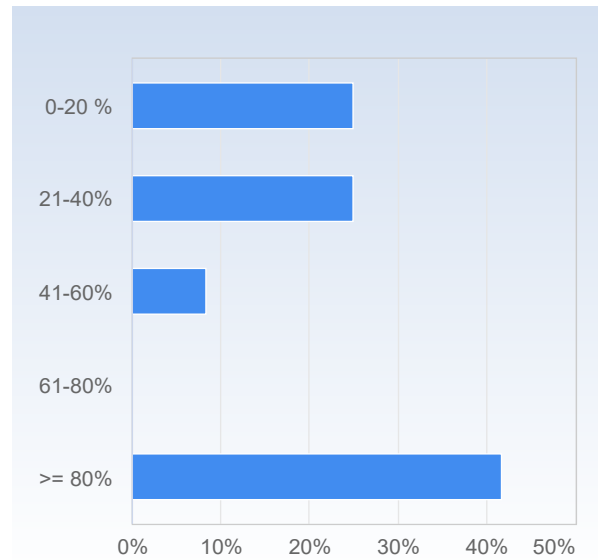
Your role in the course?	Number of responses
Student in a Physics Program LU	11 (91.7%)
Student in a Mathematics Program LU	0 (0.0%)
Student in a Teacher's Program LU	0 (0.0%)
Student from another Swedish university	0 (0.0%)
Exchange Student	0 (0.0%)
Phd Student	0 (0.0%)
Other	1 (8.3%)
If other, please specify	1 (8.3%)
Total	13 (108.3%)



Your role in the course?	Mean	Standard Deviation
Your role in the course?	2.0	2.4

Your participation at the lectures?

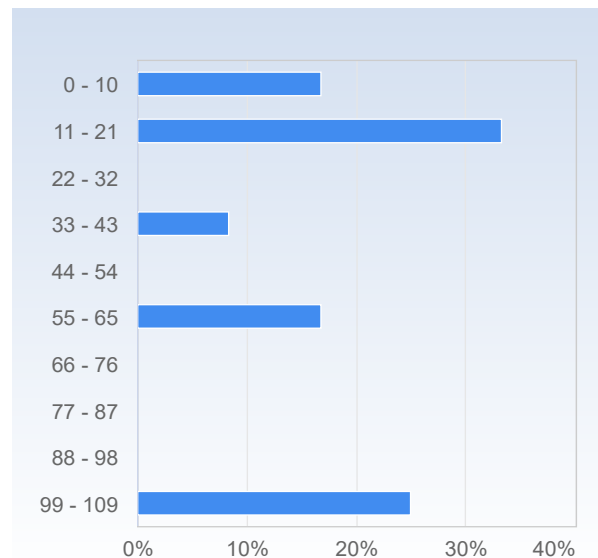
Your participation at the lectures?	Number of responses
0-20 %	3 (25.0%)
21-40%	3 (25.0%)
41-60%	1 (8.3%)
61-80%	0 (0.0%)
>= 80%	5 (41.7%)
Total	12 (100.0%)



Your participation at the lectures?	Mean	Standard Deviation
	3.1	1.8

Your participation in the training exercises.

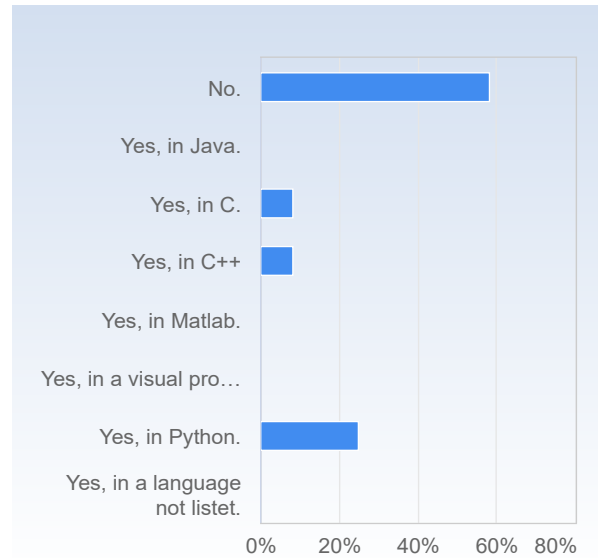
Your participation in the training exercises.	Number of responses
0 - 10	2 (16.7%)
11 - 21	4 (33.3%)
22 - 32	0 (0.0%)
33 - 43	1 (8.3%)
44 - 54	0 (0.0%)
55 - 65	2 (16.7%)
66 - 76	0 (0.0%)
77 - 87	0 (0.0%)
88 - 98	0 (0.0%)
99 - 109	3 (25.0%)
Total	12 (100.0%)



Your participation in the training exercises.	Mean	Standard Deviation
	45.0	38.3

Have you ever have written a computer program before the course start? (Please give the most relevant answer)

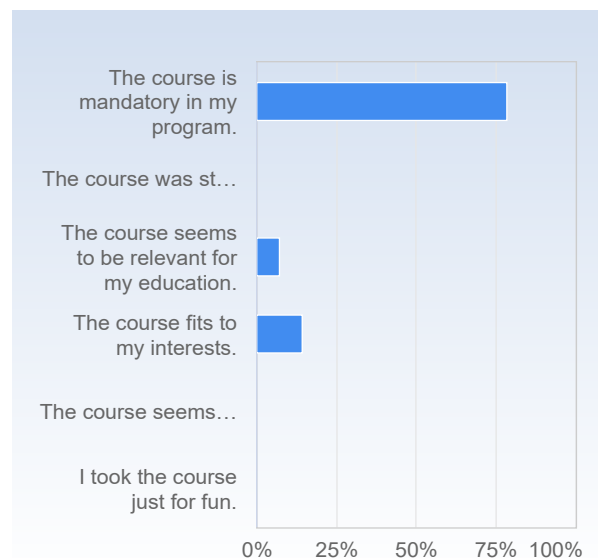
Have you ever have written a computer program before the course start? (Please give the most relevant answer)	Number of responses
No.	7 (58.3%)
Yes, in Java.	0 (0.0%)
Yes, in C.	1 (8.3%)
Yes, in C++	1 (8.3%)
Yes, in Matlab.	0 (0.0%)
Yes, in a visual programming language, like Snap! .	0 (0.0%)
Yes, in Python.	3 (25.0%)
Yes, in a language not listet.	0 (0.0%)
Total	12 (100.0%)



	Mean	Standard Deviation
Have you ever have written a computer program before the course start? (Please give the most relevant answer)	2.9	2.6

Why did you sign up for the course? (several answers possible)

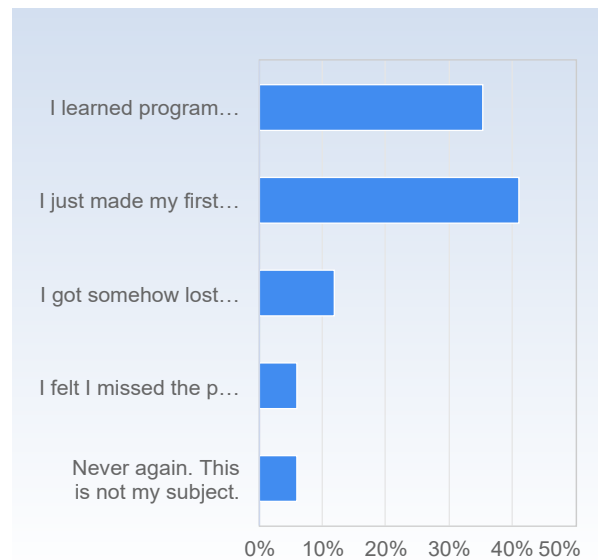
Why did you sign up for the course? (several answers possible)	Number of responses
The course is mandatory in my program.	11 (91.7%)
The course was strongly recommended in my program.	0 (0.0%)
The course seems to be relevant for my education.	1 (8.3%)
The course fits to my interests.	2 (16.7%)
The course seems to improve my chances on the work market.	0 (0.0%)
I took the course just for fun.	0 (0.0%)
Total	14 (116.7%)



	Mean	Standard Deviation
Why did you sign up for the course? (several answers possible)	1.6	1.2

Now that the lectures are done, my impression is.....

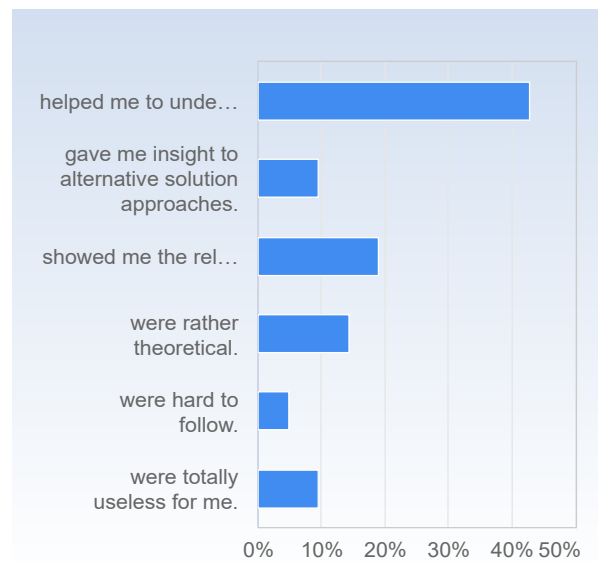
Now that the lectures are done, my impression is.....	Number of responses
I learned programming and I feel that can manage to write programs in mathematics and physics.	6 (50.0%)
I just made my first steps and got motivated to dive deeper into the subject.	7 (58.3%)
I got somehow lost during the course, but I think I will catch up.	2 (16.7%)
I felt I missed the point with this course and will retake it.	1 (8.3%)
Never again. This is not my subject.	1 (8.3%)
Total	17 (141.7%)



	Mean	Standard Deviation
Now that the lectures are done, my impression is.....	2.1	1.1

The lectures

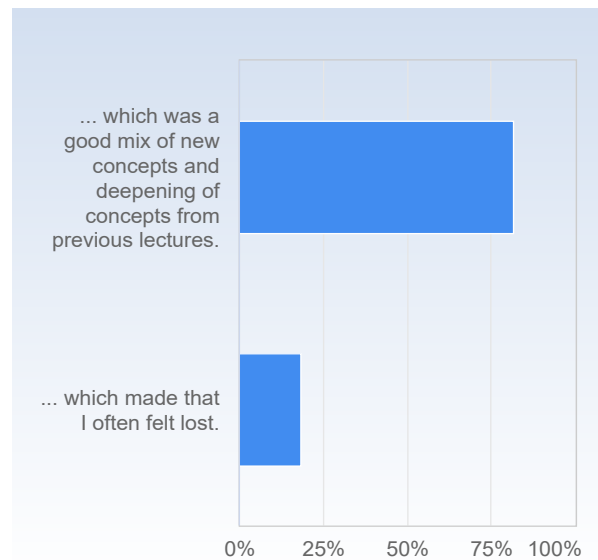
The lectures	Number of responses
helped me to understand concepts and details.	9 (75.0%)
gave me insight to alternative solution approaches.	2 (16.7%)
showed me the relevance of programming in mathematics /physics.	4 (33.3%)
were rather theoretical.	3 (25.0%)
were hard to follow.	1 (8.3%)
were totally useless for me.	2 (16.7%)
Total	21 (175.0%)



	Mean	Standard Deviation
The lectures	2.6	1.7

The material used during lectures was ordered in a way ...

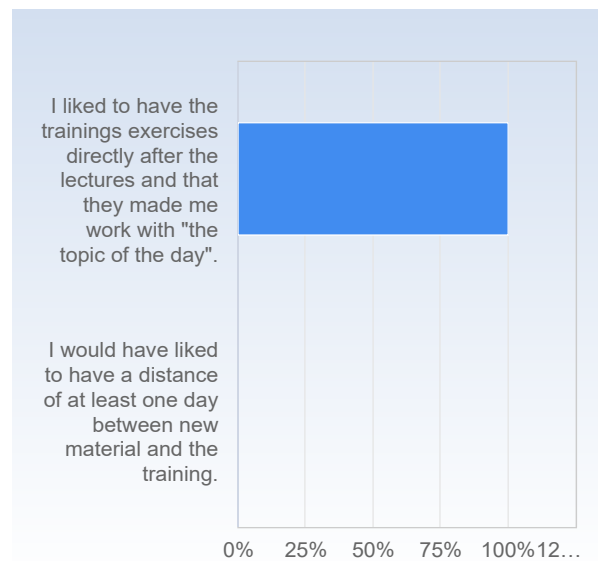
The material used during lectures was ordered in a way ...	Number of responses
... which was a good mix of new concepts and deepening of concepts from previous lectures.	9 (81.8%)
... which made that I often felt lost.	2 (18.2%)
Total	11 (100.0%)



The material used during lectures was ordered in a way ...	Mean	Standard Deviation
	1.2	0.4

Trainings Exercises

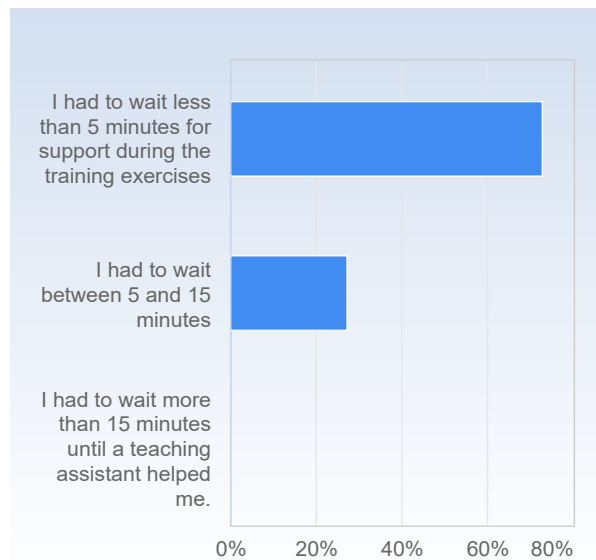
Trainings Exercises	Number of responses
I liked to have the trainings exercises directly after the lectures and that they made me work with "the topic of the day".	10 (100.0%)
I would have liked to have a distance of at least one day between new material and the training.	0 (0.0%)
Total	10 (100.0%)



Trainings Exercises	Mean	Standard Deviation
	1.0	0.0

Support

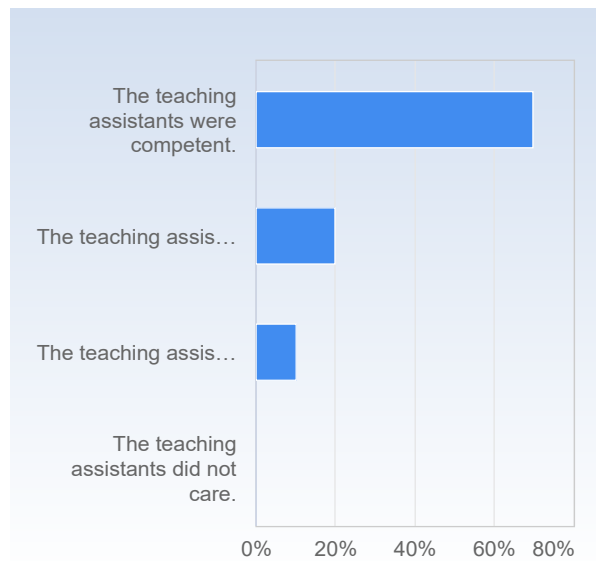
Support	Number of responses
I had to wait less than 5 minutes for support during the training exercises	8 (72.7%)
I had to wait between 5 and 15 minutes	3 (27.3%)
I had to wait more than 15 minutes until a teaching assistant helped me.	0 (0.0%)
Total	11 (100.0%)



	Mean	Standard Deviation
Support	1.3	0.5

Competence

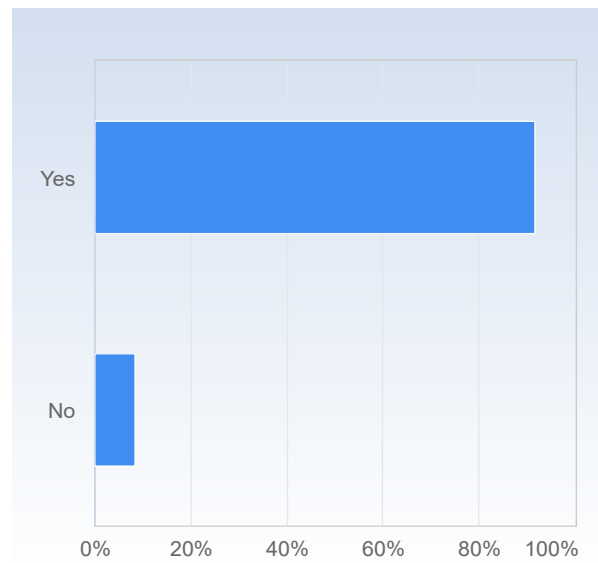
Competence	Number of responses
The teaching assistants were competent.	7 (70.0%)
The teaching assistant sometimes could not answer but found another one to help.	2 (20.0%)
The teaching assistants tried there best but gave me often wrong answers.	1 (10.0%)
The teaching assistants did not care.	0 (0.0%)
Total	10 (100.0%)



	Mean	Standard Deviation
Competence	1.4	0.7

Taining exercises. I worked in a group.

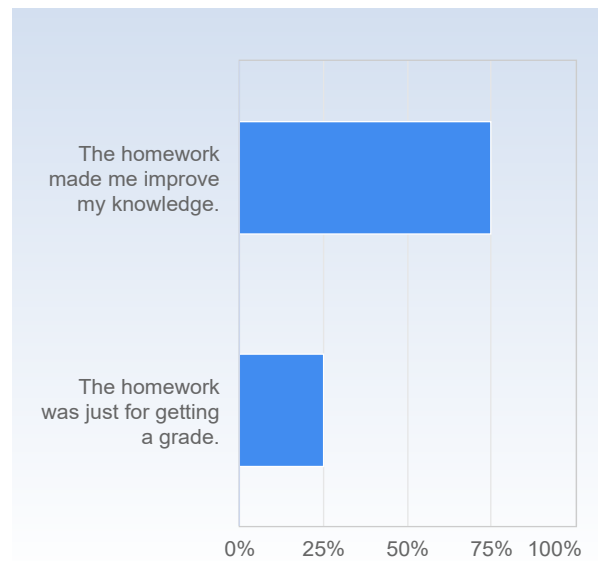
Taining exercises. I worked in a group.	Number of responses
Yes	11 (91.7%)
No	1 (8.3%)
Total	12 (100.0%)



	Mean	Standard Deviation
Taining exercises. I worked in a group.	1.1	0.3

Homework

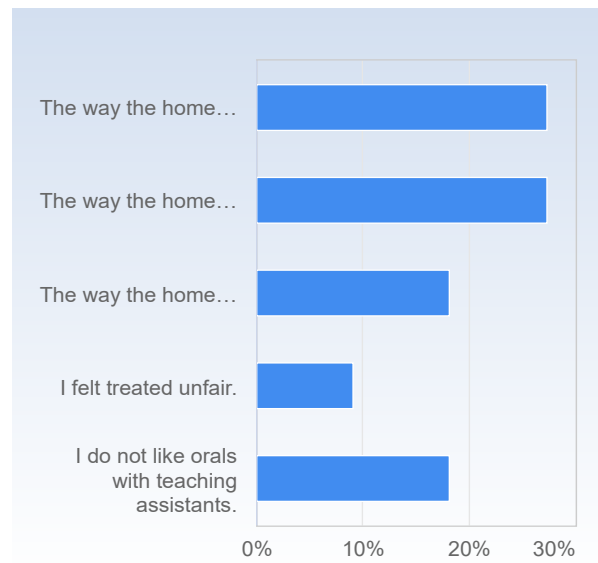
Homework	Number of responses
The homework made me improve my knowledge.	9 (75.0%)
The homework was just for getting a grade.	3 (25.0%)
Total	12 (100.0%)



	Mean	Standard Deviation
Homework	1.2	0.5

The homework presentations.

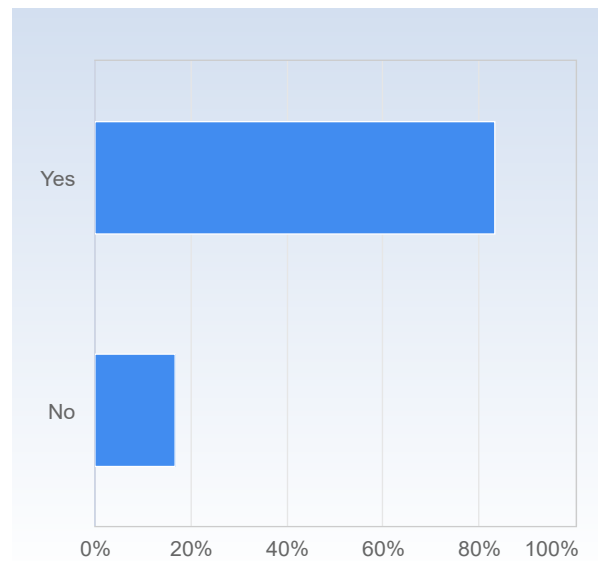
The homework presentations.	Number of responses
The way the homeworks were presented gave me a chance to get extra feedback.	3 (30.0%)
The way the homeworks were presented gave me a chance to show and test my knowledge.	3 (30.0%)
The way the homework was presented did not match to my effort I put into this work.	2 (20.0%)
I felt treated unfair.	1 (10.0%)
I do not like orals with teaching assistants.	2 (20.0%)
Total	11 (110.0%)



	Mean	Standard Deviation
The homework presentations.	2.6	1.5

I found it helpfull to work in groups for the homework

I found it helpfull to work in groups for the homework	Number of responses
Yes	10 (83.3%)
No	2 (16.7%)
Total	12 (100.0%)



	Mean	Standard Deviation
I found it helpfull to work in groups for the homework	1.2	0.4

The final project (several answers are possible)

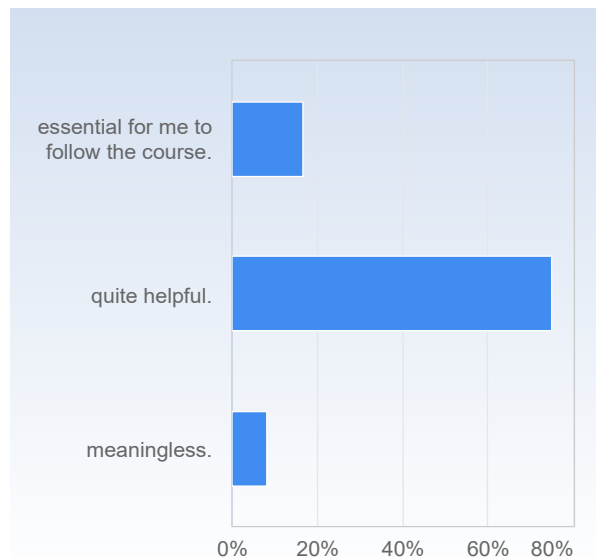
The final project (several answers are possible)	Number of responses
was to hard for me	2 (16.7%)
was a positive challenge	8 (66.7%)
gave me an additional learning effect	5 (41.7%)
made me giving up the course	2 (16.7%)
was trivial	0 (0.0%)
just too much work	1 (8.3%)
showed me a usfull application of a programming language	5 (41.7%)
Total	23 (191.7%)



	Mean	Standard Deviation
The final project (several answers are possible)	3.6	2.1

Course material. The slides and Jupyter Notebook files were ...

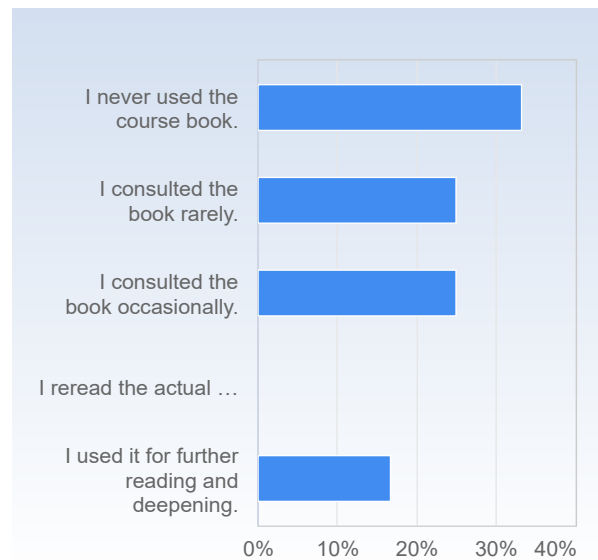
Course material. The slides and Jupyter Notebook files were ...	Number of responses
essential for me to follow the course.	2 (16.7%)
quite helpful.	9 (75.0%)
meaningless.	1 (8.3%)
Total	12 (100.0%)



	Mean	Standard Deviation
Course material. The slides and Jupyter Notebook files were ...	1.9	0.5

The course book.

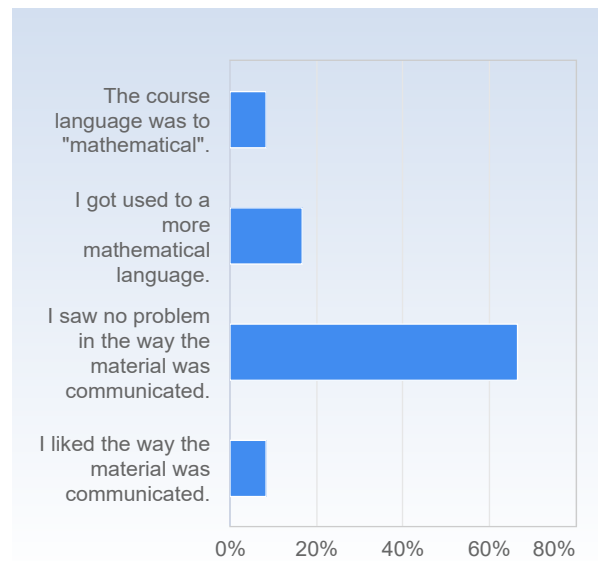
The course book.	Number of responses
I never used the course book.	4 (33.3%)
I consulted the book rarely.	3 (25.0%)
I consulted the book occasionally.	3 (25.0%)
I reread the actual sections of the lecture in the course book.	0 (0.0%)
I used it for further reading and deepening.	2 (16.7%)
Total	12 (100.0%)



	Mean	Standard Deviation
The course book.	2.4	1.4

Course style. Language

Course style. Language	Number of responses
The course language was to "mathematical".	1 (8.3%)
I got used to a more mathematical language.	2 (16.7%)
I saw no problem in the way the material was communicated.	8 (66.7%)
I liked the way the material was communicated.	1 (8.3%)
Total	12 (100.0%)



	Mean	Standard Deviation
Course style. Language	2.8	0.8