

DS2002 (Programming for Data Science, HT 2024, Halmstad, E3104, H3104)

Number of possible respondents: 44

Answers: 16

Response rate: 36,36 %

Study pace: 50 %

Examiner's course analysis

Based on the course evaluation result - which are the strengths of the course?

Having challenging but fun labs, asking the students to work in groups, and the lab interviews where we could have a discussion with each student about his solution were successful and can be considered strengths of the course. Most students agree that the course is interesting and provides relevant knowledge, which is very important. There are many statements in the evaluation to the effect of "very interesting tasks and topics."

We believe that most students have managed to learn much more than even they themselves are aware of. For example, there are also many complaints about the exam being too difficult and without enough time, which we find somewhat surprising, given that more than 60% passed, and 20% got a grade of 5.

Balance in terms of effort and time spent was also good: more than half the students spent the expected amount of time on the course, and the number of those who spent more time was lower than those who spent less time.

Based on the course evaluation result - which are the weaknesses of the course?

Overall satisfaction level from the course was more or less as expected, and it seems to be highly related to the fact that the course was relatively challenging and demanding. Some students could not keep up with the pace of the course and felt that the concepts covered were too much and perhaps a little advanced compared to their previous knowledge. However, as the only programming course in this program, it is designed to introduce the key programming and data structuring concepts – they will be crucial for the students in their future professional lives.

The biggest weakness seems to be the lack of detailed examples. Many students perceived a gap between how new concepts were introduced and how they were supposed to use them later. One comment said, "Coding on paper with a pen does not test algorithmic thinking [...] Programming is about testing different solutions and seeing what works." which is somewhat disappointing, since we have tried to teach that programming is exactly *not* that. For anything than the smallest of toy problems, trial-and-error approach is doomed to fail. Still, this course is progressing beyond the "Introduction" course. Now you must learn not only to modify the code but also to write it from scratch. That said, there is definitely room for us to be more clear in the future. Yet, even if this is essentially your first full-fledged University course, the expectation of self-study is much higher than in high school.

Comments about the collaboration with the course ambassadors

Collaboration with the course ambassadors worked very well: multiple suggestions were implemented in the course.

Conclusion and suggestions for course development or already made decisions

We are still revising the material in the course, which is the main reason why lecture slides and lab assignments appear when they do. We have tried to make them available earlier, but it has proven difficult and did not work very well.

Other comments

Thank you for the valuable comments -- even if relatively few students (barely more than one third) answered the questionnaire, there are some important suggestions. We appreciate your feedback regarding the different aspects.

We understand that the majority of the students found the course challenging. At the same time, we believe the lectures and labs are connected rather well. We have tried to be clear from the very beginning that the students should not expect to find the exact solution to a programming lab in the lecture slides. The labs were designed in a stepwise fashion of increasing difficulty; they are a crucial learning experience by itself. And the lecture materials are certainly not exhaustive: the expectation *is* that students look for additional information sources to complement them.

Gender

	Number of responses	Distribution (%)
Female	1	6%
Male	11	69%
Do not want to define	4	25%
Total	16	100%

I am overall satisfied with the course.

	Number of responses	Distribution (%)	Index (%) I am overall satisfied with the course	54
0 = I definitely do not agree	1	6%		
1	1	6%		
2	4	25%		
3	7	44%		
4	2	12%		
5 = I definitely agree	1	6%		
No opinion	0	0%		
Total	16	100%		

How much time have you spent on the course in relation to the course's study pace?

	Number of responses	Distribution (%)
Less time than the course study pace	5	31%
Corresponding to the course study pace	9	56%
More time than the course study pace	2	12%
Total	16	100%

The design of the course (teaching methods, literature, pedagogy, etc.) has been well adjusted to help me achieve the learning outcomes in the syllabus.

	Number of responses	Distribution (%)	Index (%) The design of the course (teaching methods, literature, pedagogy, etc.) has been well adjusted to help me achieve the learning outcomes in the syllabus.	48
0 = I definitely do not agree	2	12%		
1	2	12%		
2	5	31%		
3	4	25%		
4	1	6%		
5 = I definitely agree	2	12%		
No opinion	0	0%		
Total	16	100%		

During the course examinations, I have had the opportunity to show that I have achieved the learning outcomes in the syllabus.

	Number of responses	Distribution (%)	Index (%) During the course examinations, I have had the opportunity to show that I have achieved the learning outcomes in the syllabus.	
0 = I definitely do not agree	1	6%		
1	1	6%		
2	0	0%		
3	2	12%		
4	6	38%		
5 = I definitely agree	6	38%		
No opinion	0	0%		
Total	16	100%		76

I have experienced the social study environment as good during the course.

	Number of responses	Distribution (%)	Index (%) I have experienced the social study environment as good during the course.	
0 = I definitely do not agree	1	6%		
1	0	0%		
2	1	6%		
3	1	6%		
4	5	31%		
5 = I definitely agree	8	50%		
No opinion	0	0%		
Total	16	100%		81

Course satisfaction index

Satisfaction index % (summary of all statements)	65
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