

EL8003 (Semiconductor Devices, HT 2024, Halmstad, H3911, X3912)

Number of possible respondents: 35

Answers: 20

Response rate: 57,14 %

Study pace: 50 %

Examiner's course analysis

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

The textbook is some years old. I developed a course lecture notes in a systematic way, from quantum physics, solid state theory, semiconductor material science, to the device physics, closely correlated with the education program and students' education background. The results in teaching and deep-learning were very good.

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

The course is given students of two programs of very different education backgrounds, some of students have very limited fundamental physics-mathematics knowledge. This is clearly reflected during lectures and in the course evaluation. In the course evaluation report, in "What can be improved in the course?", one reads one line: "The emphasis on quantum mechanics to learn devices can be toned down, because the industry doesn't demand the knowledge of quantum mechanics of a semiconductor device." In reality, the whole semiconductor industry is built totally on quantum physics. This diverse background of education makes the teaching very difficult. I sincerely hope that the education background of students in physics, mathematics, and numerical programming, should be enhanced.

Comments about the collaboration with the course ambassadors

Course ambassador was discussed at the first lecture. But because the course is taken by students from different education programs, we could not fix the Course ambassador. Instead, it was agreed that any questions were directly communicated with me. And, it worked quite well. In course evaluation report, you read that "Ying takes the time to answer questions related to the course both during and outside scheduled class hours, which greatly helps in absorbing the course content."

Conclusion and suggestions for course development or already made decisions

I am very happy about the teaching. There are suggestions from students asking "more classes should be provided for group discussion on problems and theory so that we can compare our answers with others, if possible, with guidance from the professor." This is to be discussed at the education program level.

Other comments

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Gender

	Number of responses	Distribution (%)
Female	11	55%
Male	9	45%
Do not want to define	0	0%
Total	20	100%

I am overall satisfied with the course.

	Number of responses	Distribution (%)	Index (%) I am overall satisfied with the course	65
0 = I definitely do not agree	2	10%		
1	3	15%		
2	0	0%		
3	3	15%		
4	7	35%		
5 = I definitely agree	5	25%		
No opinion	0	0%		
Total	20	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	3	15%
Corresponding to the course study pace	15	75%
More time than the course study pace	2	10%
Total	20	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.	58
0 = I definitely do not agree	3	15%		
1	3	15%		
2	2	10%		
3	2	10%		
4	3	15%		
5 = I definitely agree	6	30%		
No opinion	1	5%		
Total	20	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	3	15%		
1	1	5%		
2	3	15%		
3	1	5%		
4	3	15%		
5 = I definitely agree	9	45%		
No opinion	0	0%		
Total	20	100%		67

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	5%		
1	0	0%		
2	2	10%		
3	3	15%		
4	4	20%		
5 = I definitely agree	8	40%		
No opinion	2	10%		
Total	20	100%		77

Course satisfaction index

Satisfaction index % (summary of all statements)	66
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