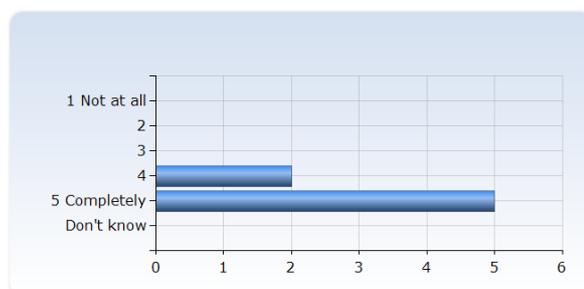


## FK7046 - Optics and Laser Physics - VT2018

Respondents: 18  
Answer Count: 7  
Answer Frequency: 38.89 %

### 5. Overall impression

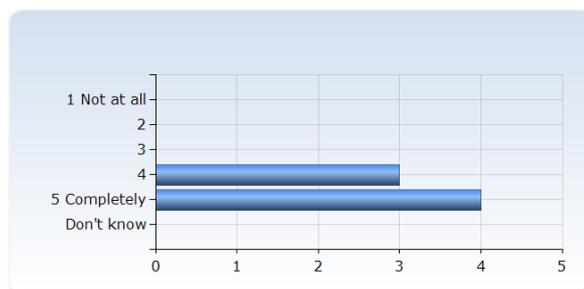
Overall I am satisfied with this course	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (28.6%)
5 Completely	5 (71.4%)
Don't know	0 (0.0%)
Total	7 (100.0%)



### 6. Student contribution

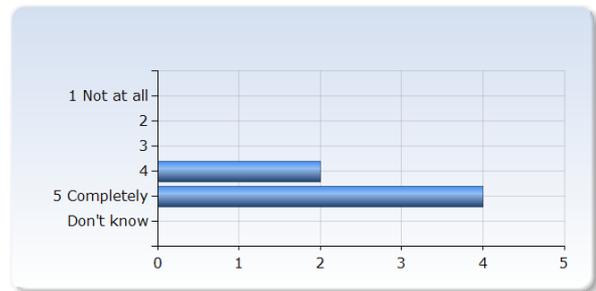
#### I am satisfied with my own effort in the course

I am satisfied with my own effort in the course	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	3 (42.9%)
5 Completely	4 (57.1%)
Don't know	0 (0.0%)
Total	7 (100.0%)



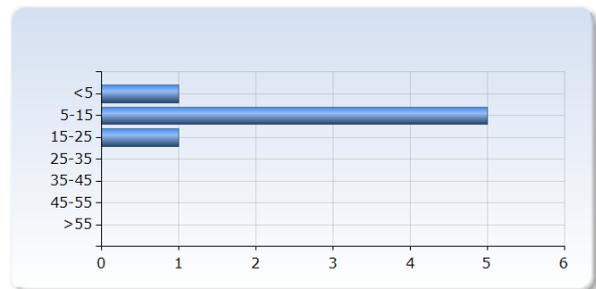
## I took responsibility for my own learning in the course

I took responsibility for my own learning in the course	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (33.3%)
5 Completely	4 (66.7%)
Don't know	0 (0.0%)
Total	6 (100.0%)



## 7. Work load

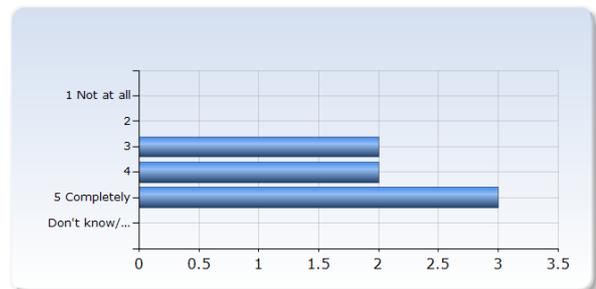
Indicate how many hours per week on average you have spent on the course, including self-studies and scheduled study time	Number of Responses
<5	1 (14.3%)
5-15	5 (71.4%)
15-25	1 (14.3%)
25-35	0 (0.0%)
35-45	0 (0.0%)
45-55	0 (0.0%)
>55	0 (0.0%)
Total	7 (100.0%)



## 8. Clear aims

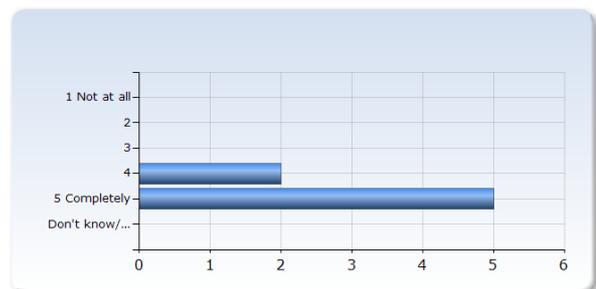
### It was clear to me what I was expected to learn

It was clear to me what I was expected to learn	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	2 (28.6%)
5 Completely	3 (42.9%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



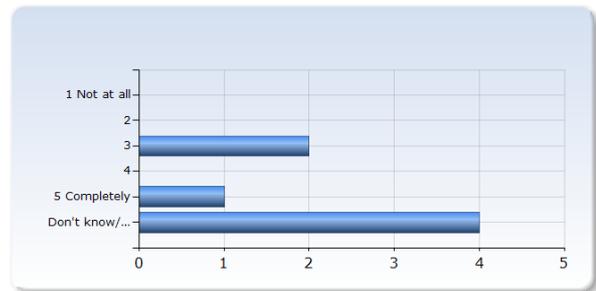
### I felt that the course content and teaching methods were relevant to the learning outcomes

I felt that the course content and teaching methods were relevant to the learning outcomes	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	2 (28.6%)
5 Completely	5 (71.4%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



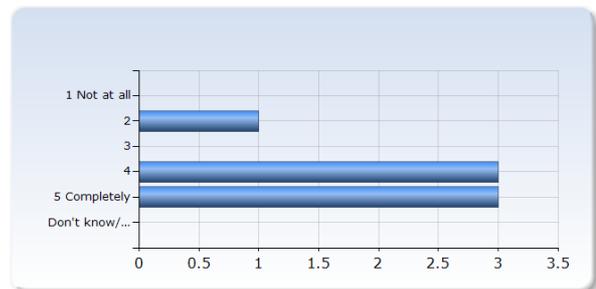
## The examination tested how well I had achieved the learning outcomes

The examination tested how well I had achieved the learning outcomes	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	0 (0.0%)
5 Completely	1 (14.3%)
Don't know/ Not relevant	4 (57.1%)
Total	7 (100.0%)



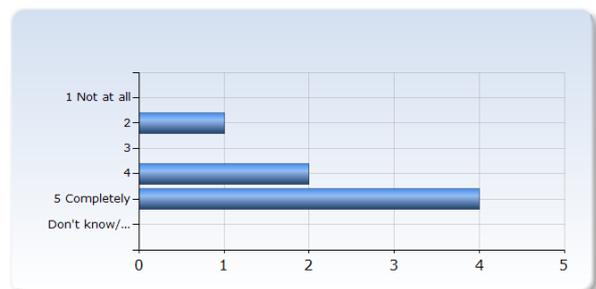
## The course corresponded to my expectations

The course corresponded to my expectations	Number of Responses
1 Not at all	0 (0.0%)
2	1 (14.3%)
3	0 (0.0%)
4	3 (42.9%)
5 Completely	3 (42.9%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



## I feel that I will have use of what I have learnt after my studies

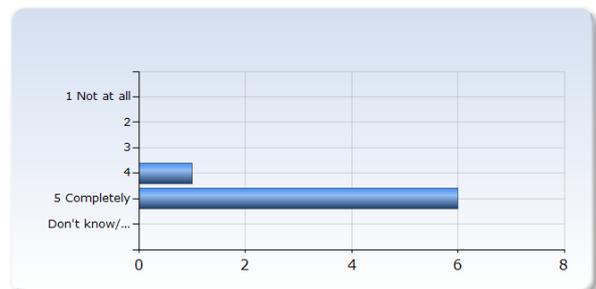
I feel that I will have use of what I have learnt after my studies	Number of Responses
1 Not at all	0 (0.0%)
2	1 (14.3%)
3	0 (0.0%)
4	2 (28.6%)
5 Completely	4 (57.1%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



## 9. Good teaching

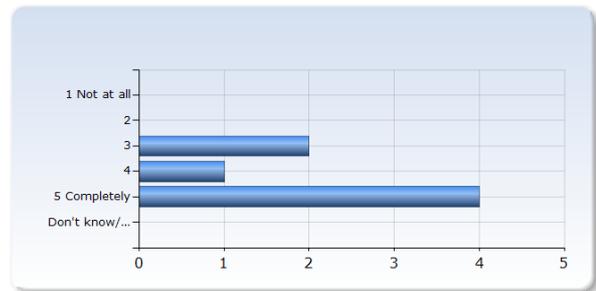
### The course prerequisites were sufficient to follow the course

The course prerequisites were sufficient to follow the course	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (14.3%)
5 Completely	6 (85.7%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



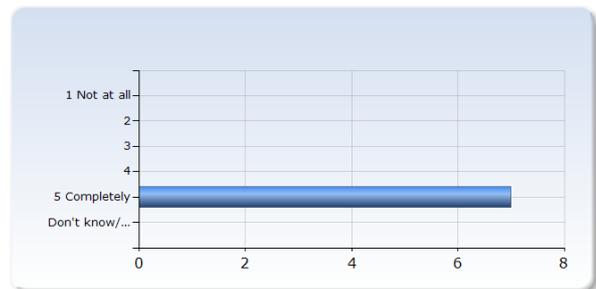
## I felt that the course was well structured

I felt that the course was well structured	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	1 (14.3%)
5 Completely	4 (57.1%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



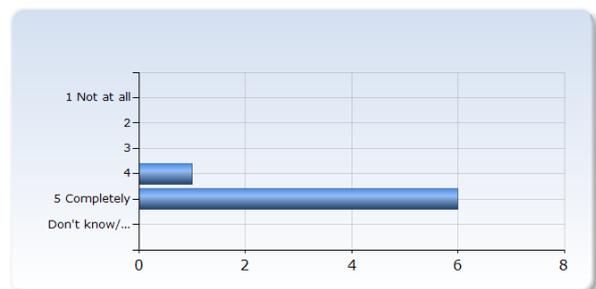
## I felt that the teachers have helped me to reach the learning outcomes

I felt that the teachers have helped me to reach the learning outcomes	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5 Completely	7 (100.0%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



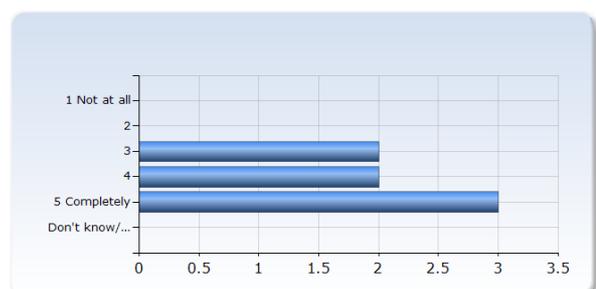
## I could understand what was being taught

I could understand what was being taught	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	1 (14.3%)
5 Completely	6 (85.7%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



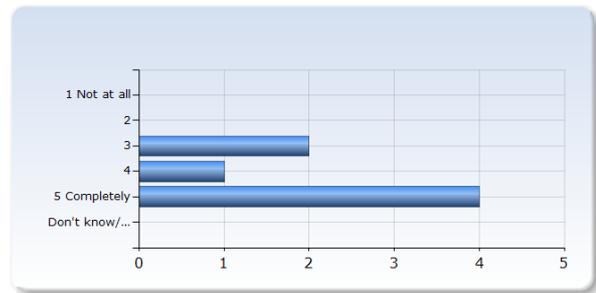
## I have received constructive feedback on my performance

I have received constructive feedback on my performance	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	2 (28.6%)
5 Completely	3 (42.9%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



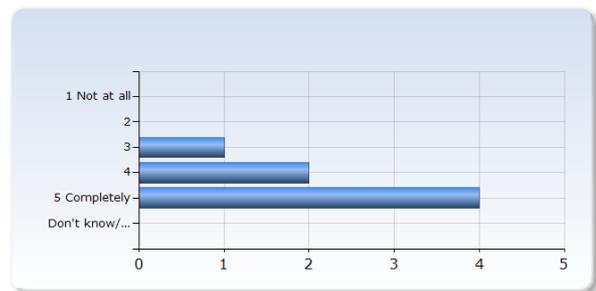
## I was encouraged to reflect on my learning during the course

I was encouraged to reflect on my learning during the course	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	1 (14.3%)
5 Completely	4 (57.1%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



## The course material helped me in my work to achieve the learning outcomes (literature, e-resources etc.)

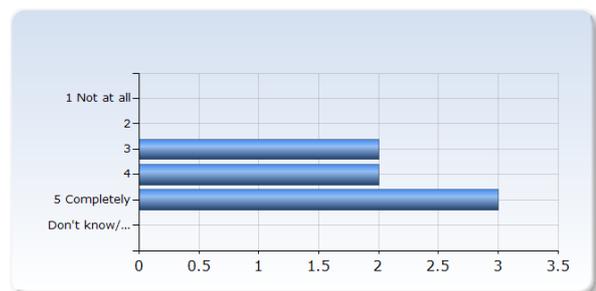
The course material helped me in my work to achieve the learning outcomes (literature, e-resources etc.)	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	1 (14.3%)
4	2 (28.6%)
5 Completely	4 (57.1%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



## 10. Administration and study environment

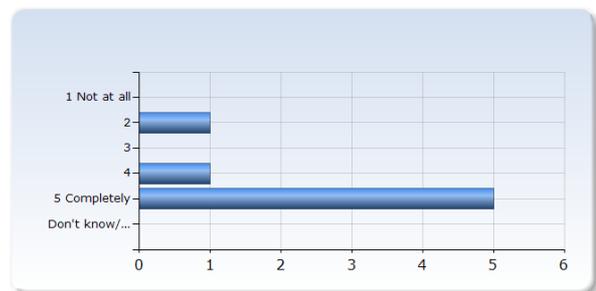
### I felt that the course was well organized

I felt that the course was well organized	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	2 (28.6%)
4	2 (28.6%)
5 Completely	3 (42.9%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



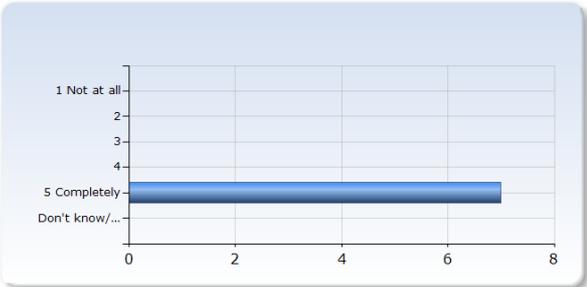
### I have been able to find the information I felt I needed before and during the course

I have been able to find the information I felt I needed before and during the course	Number of Responses
1 Not at all	0 (0.0%)
2	1 (14.3%)
3	0 (0.0%)
4	1 (14.3%)
5 Completely	5 (71.4%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)



### I was able to get support when I needed it

I was able to get support when I needed it	Number of Responses
1 Not at all	0 (0.0%)
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5 Completely	7 (100.0%)
Don't know/ Not relevant	0 (0.0%)
Total	7 (100.0%)

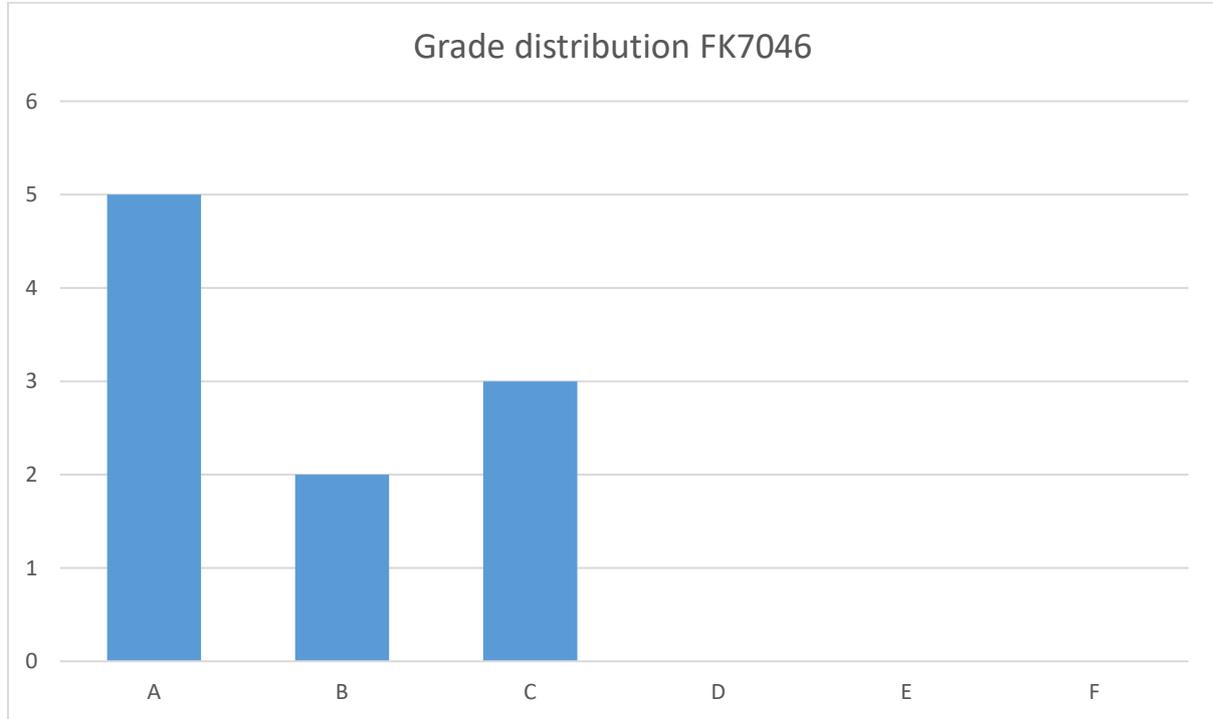


## Course reflection Optics and Laser Physics FK7046

### Results on Oral Exams

Students taking the exam: 10

Students passing the exam: 10 (100%)



**Comment:** The grades are a bit too good on average. However, many students showed excellent understanding in the oral exam. We might need to adjust the grading level in the next year.

### Course evaluation

The survey was sent out to 18 students, only 7 students replied. A big "Thank you!" to the students that replied. This will help us to improve the course in the next year.

#### 1) What is the best aspect of the course

The students enjoyed the lectures, the combination of theory and practical applications, the exercises and the presentations. We will keep this mix of topics and concepts.

#### 2) What improvements would you suggest in the course?

*The students commented that there should be more laser physics and less basic optics.*  
Measure for next year: We will reduce the first part of the lecture (= optics) to keep more time for the second part (= laser physics).

*The students commented that it would be better to schedule the labs beforehand.*  
Measure for next year: We will plan a fixed schedule for the labs.

*The students commented that the exercises should be earlier.*  
Measure for next year: We will schedule exercises more directly related to the topics in the lectures.

Most importantly, we are working on improving the quality of the labs. We will modify the lab assignments, so that they better fit to the course topics and are more instructive for the students.

Some planned modifications are the mode-matching of a laser beam to an optical cavity, and the observation of the modes of the cavity on a camera, for which we will need a narrowband laser.

### 3) What advice would you like to give to future course participants?

The students have mainly given tips how to prepare for lectures, labs and presentations.

### 4) Other comments

“Fun”. We are happy that the students enjoyed the course.

### 5) Overall impression

We are happy to see that most of the students were satisfied with the course; however, we will still try to improve the labs, shift to focus of the lecture a bit more towards laser physics, and make lectures and exercises more connected.

### 6) Student contribution

The students were in general satisfied with their own effort in the course. I think the student’s oral presentations were generally well received and gave the students an opportunity to work independently on a specific topic. We will keep this element for the next year.

### 7) Workload

The workload for the students was a bit low at the beginning of course and higher at the end. It would be better to have some presentations earlier and not at the end of the course. This would level out the workload a bit.

### 8) Clear aims

Even though the course goals were described in the official course description on the web, we will need to communicate better the goals of the course and the learning outcomes. We will do this more detailed at the beginning of the course next year.

One of the students wants to study theoretical or calculation physics afterwards and therefore will probably not use much of what she/he has learned in the course.

### 9) Good teaching

The students generally felt

- that the course prerequisites were sufficient to follow the course,
- that the course was reasonably well structured (we will work on the comments above)
- that they understood what was being taught
- that they mostly received constructive feedback (we might be able to improve on the feedback)
- that they were encouraged to reflect on their learning during the course (but maybe more reflection would help).
- that the course material mostly helped them to achieve the learning outcome (there seems to be a bit of room for improvement).

### 10) Administration and study environment

One student commented that there were only 3 labs, but 4 lab instructions, which was a bit confusing.

**Comment:** One lab could not take place since no pulsed laser was available for the labs. We will revise the labs for next year which should also resolve this issue.

11) Please let us know if you feel that students has not been treated with respect or has been discriminated against.

No problem recognized by the students.

12) What do you think about the lectures given in this course?

The lectures were generally stated to be very good to good.

**Comment:** I am glad that the mix of blackboard and powerpoint slides was well received.

13) What do you think about the exercises?

The exercises were stated to be good to very good.

**Comment:** Thank you for the comments. We will exchange the exercise with the satellite for a more suitable one.

14) What do you think about the oral presentations?

The oral presentations were very well received.

**Comment:** We will continue with oral presentation next year.

15) What do you think about the experimental sessions?

The experimental sessions were acceptable to very good.

**Comment:** We will improve the experiments and make them more interesting (see above).

16) What do you think about the lecture notes?

The lecture notes were good to very good, with one "bad".

**Comment:** We will need to make the lecture notes more structured and readable.

Individual grades

The individual grades were all good to very good.

Thank you! 😊