

Kursanalys för SK2411

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| Datum för kursanalysen | 2019-06-05 |
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Sida 1: Kvantitativ analys

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| Läsår: | 2019 |
| Läsperiod(er): | VT-2019 |

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| Kursansvarig: | Valdas Pasiskevicius |
| Lärare: Föreläsare | Valdas Pasiskevicius |
| Övningsassistenter | Robert Lindberg |
| Labbassistenter | Fredrik Laurell, Robert Lindberg, Kjell Moelster |
| Övriga inblandade lärare | Hoon Yang |

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| Antal registrerade studenter | 16 st |
| Prestationsgrad, * % (t.o.m. ovan datum) | 65 % |
| Examinationsgrad, ** % (t.o.m. ovan datum) | 69 % |

* Antalet presterade poäng hittills på kursen dividerat med antalet möjliga poäng för de registrerade studenterna vid gällande datum.

** Andel studenter av de registrerade som klarat samtliga kurskrav vid gällande datum.

OBS! När du skickar in din kursanalys, bifoga aktuell kursplan.

Sida 2: Kvalitativ analys

Kursens pedagogiska utveckling

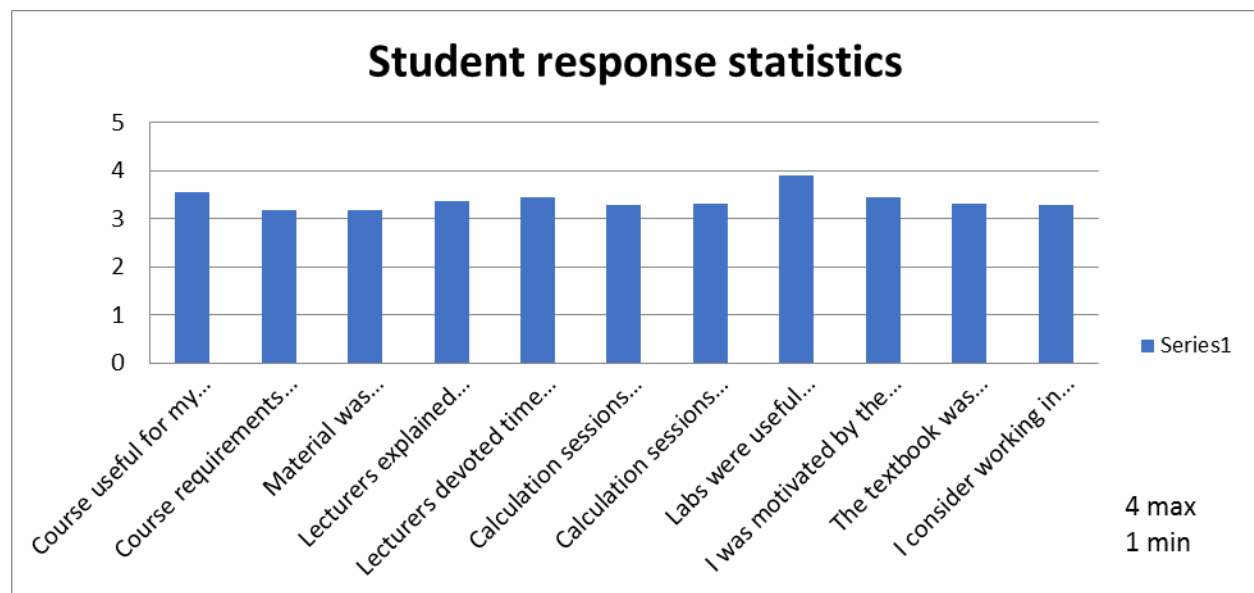
Redogör för eventuella förändringar införda utifrån förra årets kursanalys.

1. Lecture notes have been updated with new developments in the field.
2. Lecture notes for Lectures 4-9 were newly developed.
3. New lab assistant has been introduced and performed successfully
4. The course website has been updated.

Studenternas syn på kursen

Redogör för studenternas syn på kursen (dokumenterad genom kursenkät, kursnämndsmöten, intervjuer och/eller annan lämplig metod).

The student questioner has been given during exam. Most of the students provided answers. The statistics is shown below.



From the answers it is clear that the students perceive the course as very useful for their education and their future careers. Actually, large proportion of students who came to the first exam answered that they consider, in the future, working in the field of optics and lasers. The exercise sessions and labs were appreciated as well. The textbook and the amount of material was considered as large.

In the comments, there were suggestions to increase give more examples of problem solutions,

increasing detail level of some power point slides, increasing number of exercise sessions or/and giving home assignments in order to motivate students to start reading material earlier in the course. Couple of students were uncertain what was allowed to use during exam and how many points minimum was required to pass the exam.

Kursansvarigs syn på kursen

Sammanfatta hur utförandet och resultatet av kursen gått, samt tolka/analysera studenternas syn på kursen.

The class of 2019 was interested and engaged in the subject. They were eagerly solving exercise problem and asked to post more of the previous exam problems on Canvas. The Canvas was continuously updated with new lecture notes. In the next year's website we will clearly specify what is allowed and not during exam. It seems, that the conveying information during the lectures was not sufficient. The exam results are better than expected showing that, on average the student were preparing well, understood the course material and could apply it for solving new problems.

There is recurring weakness in basic physics knowledge among students. This is a systemic trend which forces us to presume that the majority of the class has not completely absorbed the knowledge from basic physics courses, especially quantum mechanics. This year was not an exception. This forces us to once again explain the basics first (primarily related to quantum mechanical picture of light-matter interaction). Hopefully with the new and updated Optics track this problem will be solved by introduction of a new mandatory course to cover such basics, i.e. connection between the formal quantum mechanical picture to the application of it for understanding the real-world phenomena. Such additional course would reduce the amount material and reading required in the Laser physics course.

Seminar room FA32 is not well suited for the lectures where both, the overhead projection and whiteboard writing are used, quite often at the same time. During one lecture the overhead projector did not work at all in FA32. Personally, that was the best lecture devoid of distractions.

Förändringar inför nästa år

Föreslå vilka förändringar du planerar att göra för att främja kursens pedagogiska utveckling och kvalitet.

The course moves to period 3 in 2020 in order to remove overlap with Quantum Electronics

course.

Upgrades of the solid state laser lab will be considered.

This course in 2020 will follow after light-matter interaction course, and becomes elective, there will be more flexibility to adjust the contents of the course and to make it more appealing to the programs interested in laser applications. There will not be any need to cover the basics of the light matter interaction, as that will be covered in the planned separate course. It has to be seen if resources are sufficient to maintain labs in the course in the future.