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## Report - SD2415 - 2017-11-08

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Respondents: 1  
Answer Count: 1  
Answer Frequency: 100.00 %

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Please note that there is only one respondent to this form: the person that performs the course analysis.

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**Course analysis carried out by (name, e-mail):**

Malin Åkermo akermo@kth.se

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**COURSE DESIGN**

**Briefly describe the course design (learning activities, examinations) and any changes that have been implemented since the last course offering.**

This course is built around thematic modelling chapters related to composites manufacturing. Every Monday a new modelling aspect is presented and each Friday a corresponding assignment is presented to the students. The assignments may be partly experimental and they are preferentially solved in pairs. Each assignment is graded and feedback is provided to the students on weekly basis. The course ends with a written assignment and the final grades depends to 50% on written exam and to 50% on average assignment grade. The course has been given for 9 years and has found its shape, so no major changes have been done since last year. However, this year the number of students increased with 100% compared to last year ( and compared to all previous years), which made the feed-back time on assignments increasing dramatically for me as the teacher.

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**THE STUDENT'S WORKLOAD**

**Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?**

The average student work hard and they estimate that they put 16h on the course each week, which is exactly corresponding to 6hp. (0.6 ph /week for 10 weeks)

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**THE STUDENTS' RESULTS**

**How well have the students succeeded on the course? If there are significant differences compared to previous course offerings, what can be the reason?**

82% of the students passed the theoretical exam and the course in the first trial. 6% did not show up at the exam and 6% reached FX. This is in parity with previous years. The assignment grades, on average, comes out higher than the grades from the theoretical exam, which is expected since the students work in groups of two.

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#### **OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT**

**What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?**

The 2017 course included 100% more students than the 2016 course. Students accepted to the course also had a larger variation in background knowledge and interests. This can be seen on the general impression of the course as well as in specific comments. The course is based on open questions, which gives students with less background knowledge a tougher situation.

The format of the course requires a lot of work, you cannot just glide through and pass the exam by studying exam questions. Interested students putting more time into the course, among them students especially coming here to study the subject Lightweight structures, generally likes this course more than an average student.

The females are generally more satisfied than the males in all criteria's. I cannot explain why. Due to poor answering frequency previous years, I have not been able to see the distinction between the different groups of students before (male/female/exchange). I will follow this up during next year to see if this is a general trend or just for this particular year.

#### **ANALYSIS OF THE LEARNING ENVIRONMENT**

**Can you identify some stronger or weaker areas of the learning environment in the polar diagram - or in the response to each statement - respectively? Do they have an explanation?**

The question considering having the right background knowledge (17) is graded lower this year than average. I accepted a group of students to the course which had to struggle quite hard as it seemed (23% of the number of students in the course). Next year I need a better confirmation from the study advisers on the level of the students.

The course grading is to 50%, built on assignments which need to be reported. The grading of the assignments are done as clearly as possible, however of course it can be difficult for students to know exactly what is required. This can be seen in the diagram, point 13. On the other hand, the diagram also indicates that the grading is considered fair, which is promising (16).

The question considering togetherness with the class has this year gained lower grades than previous years (5). I believe that this is an effect of the larger course and that a group of exchange students coming from another KTH School kept together. It could have been good to integrate these more into the rest of the class during the assignments.

Question 20, considering the possibility to choose what to do, is always graded lower than the rest of the questions in this course. I can see that the students have a lot of choices during the course, however they do not see it. I need to clarify this in general, but I also need to consider if I can include some choices considering how to be examined or which types of assignments to do, etc.

#### **ANSWERS TO OPEN QUESTIONS**

**What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?**

The students working hard with the course is also satisfied with the course and how it is constructed. Some are overwhelming, finding it both interesting and well planned. However, it can be seen from the open questions that it does not fit all students.

One student ask for more old exams with written answers to help in the preparation for the theoretical exam. Another student want more lectures where we do analytical modelling. Since we use COMSOL it was further recommended to try to fit their training sessions at KTH with the course.

The students advice future students to focus on the assignments. They say that there is a lot of learning gained by doing so and that this will help future students on the theoretical exam.



#### **PRIORITY COURSE DEVELOPMENT**

##### **What aspects of the course should primarily be developed? How could these aspects be developed in the short or long term?**

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The following improvements will be done for next year:

I will clarify in the Course PM and in discussion with study advisers how this course builds on the knowledge gained in previous courses acting as prerequisites. I will also take it up during the first lecture. This in order to ensure that students have the right background knowledge.

I will make typical exam questions available in order to further clarify the basic theoretical knowledge included in the course.

For the next year and forward:

I will include more modelling examples during lectures since this makes the contents more specific and clearer. I can not do large changes until next year since it might need some rescheduling, but I will already next year include parts of lectures when I work together with the students on modelling examples. If this falls out well and more lecture time is needed to spend even more time on modelling, I will make further changes in coming years.

I need to develop the assignment part since I cannot manage groups of this size in its current format. Several students pointed out that they specifically liked that modelling was not only taught, but also experienced in the course and that there were a variety of modelling techniques included. I will keep this while considering including e-reporting as reporting format for some of the assignments. I do not want to reduce the time spent on the modelling part, but the reporting time, and I want the grading/requirements to become clearer. This development will start on a trial basis next year and will continue based on how it falls out.

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# Kursdata 2017-11-24

## SD2415 - Processmodellering för kompositillverkning, HT 2017

### Kursfakta

Kursen startar:	2017 v.35
Kursen slutar:	2017 v.43
Antal högskolepoäng:	6,0
Examination:	LAB1 - Laboration, 4,0, betygsskala: A, B, C, D, E, FX, F TEN1 - Tentamen, 2,0, betygsskala: A, B, C, D, E, FX, F
Betygsskala:	A, B, C, D, E, FX, F

### Bemanning

Examinator:	A Malin Åkermo <akermo@kth.se>
Kursomgångsansvarig lärare:	A Malin Åkermo <akermo@kth.se>
Lärare:	A Malin Åkermo <akermo@kth.se>
Assistenter:	

### Antal studenter på kursomgången

Förstagångsregistrerade:	33
Totalt registrerade:	34

### Prestationer (endast förstagångsregistrerade studenter)

Examinationsgrad <sup>1</sup> [%]	81.80%
Prestationsgrad <sup>2</sup> [%]	93.90%
Betygsfördelning <sup>3</sup> [%, antal]	A 22% (6) B 41% (11) C 26% (7) D 11% (3)

1 Andel godkända studenter

2 Andel avklarade poäng

3 Betygsfördelning för godkända studenter