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## Report - SI1410 - 2021-01-18

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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.

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

Lucie Delemotte lucied@kth.se

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**DESCRIPTION OF THE COURSE EVALUATION PROCESS**

**Describe the course evaluation process. Describe how all students have been given the possibility to give their opinions on the course. Describe how aspects regarding gender, and disabled students are investigated.**

The course evaluation was sent out to all students just after the exam week, as they obtained their grades. They were all individually encouraged to respond at the end of their oral exam. They could fill in their gender as well as disability status if they liked.

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**DESCRIPTION OF MEETINGS WITH STUDENTS**

**Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)**

I arranged online meetings about half-way through the course in workshop groups to complement the exercise hours where we were meeting in the whole class.

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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.**

The course aims at giving an introduction to modeling dynamical systems. The course consists of 6 modules (1 per week). Each module is centered around a topic and consists of four activities, a lecture, a workshop (in groups of 4-5, in the absence of a teacher), an exercise session (where the problems attempted in the workshops are solved) and a computer lab (done in pairs). The activities are designed to complement each other. Two individual computer lab reports are graded (1.5 credits each) and the final written exam accounts for 3 credits. The exam has 4 problems and each of them should be passed to pass the exam, the final grade is a result of the individual grades. We have a midterm in an empty week in the middle of the period so the students can practice. This is graded for reference but the grades do not count towards the final grade. However, one grade from one exercise that was successful can be transferred from the midterm to the final exam, in case one exercise failed on the exam.

Following the 2016 course evaluation, the structure of the course was modified. The total material was reduced, the modules were introduced as well as the workshops and the corresponding exercise sessions. The grading system was modified to ensure all the intended learning outcomes are fulfilled upon passing the course.

Following the 2018 course evaluation, we added few lectures. Instead of one single lecture, we had two lectures for modules 1, 2, 3 and 5. We also increased the quantity of practice problems by providing all past midterms and exams, including a selection with correction.

Following the 2019 course evaluation, the focus was on increasing the perception of fairness around grading, and on providing the grading schemes used. The 2020 edition had to be significantly changed with quite short notice to enable entirely remote learning. The lectures were pre-recorded in shorter segments around 20 minutes maximum. Those were offered to be watched at any point. We introduced online quizzes with a deadline mid-module. The exercise sessions were done live and on zoom. Labs were done on zoom, and partial corrections of labs were provided. The main change was the exam, which was turned into a whole-day home exam complemented by a 10 minute oral exam. Several exam texts had to be prepared to minimize collaboration between students. Each exam had 2 parts, an analytical part and a computational part. Access to all course material and online resources was permitted.

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### **THE STUDENTS' 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 reported time spent in 2017 was around 12-14 hours per week, the average reported time spent in 2018 around 18-20 hours, the average reported time spent in 2019 is 15-17 hours. The time spent in 2020 is on the higher end of this bracket. Possibly having access to a lot of material online leads the students to spend more time if they wish.

### **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?**

The students did very well in 2020, and the re-exam was particularly successful. Combining the regular exam with the reexam, all students who handed in an exam passed. There were a handful of students not handing in an exam.

Having access to the computer during the computational part of the exam enhances their performance and allows them to focus on using matlab to model dynamical systems rather than memorizing the syntax.

### **STUDENTS' ANSWERS TO OPEN QUESTIONS**

**What does students say in response to the open questions?**

This year due to the move online, there are positive comments on the recorded lectures and the quizzes but the students regret not having computer labs in person.

### **SUMMARY OF STUDENTS' OPINIONS**

**Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.**

The students appear to be generally very satisfied with the class. Consistently with previous years, the students appreciate the clarity of the structure and the fact that they know what they need to do to get a certain grade.

Having access to teachers during Q&A which replaced lectures and workshop hours is appreciated to get feedback without being graded.

### **OVERALL IMPRESSION**

**Summarize the teachers' overall impressions of the course offering in relation to students' results and their evaluation of the course, as well as in relation to the changes implemented since last course offering.**

The students satisfaction is the highest since the beginning of this class in 2015. Interestingly, the teacher's satisfaction is probably at its lowest due to the move to online education.

I regret having much less face time with students. Talking to a zoom screen is much dryer than talking to students. Preparing quizzes and exams for online has been extremely time consuming. However, seeing the students performance and satisfaction makes it worth it!

### **ANALYSIS**

**Is it possible to identify stronger and weaker areas in the learning environment based on the information you have gathered during the evaluation and analysis process? What can the reason for these be? Are there significant difference in experience between:**

- students identifying as female and male?
- international and national students?
- students with or without disabilities?

There is not a lot of difference between male and female students, and I note that the tendency is opposite to the one seen in 2019.

Students who took this class for the second time and who are now one year ahead had more satisfaction and commented that the class was better than when they last took it.

The number of students with disabilities is too low to say much but the extra time on the exam is appreciated by at least one student.

### **PRIORITIZED COURSE DEVELOPMENT**

**What aspects of the course should be developed primarily? How can these aspects be developed in short and long term?**

The fact that different students had different exams was perceived as unfair. When possible, we will go back to an exam in class to enable all students to have the same exam.

We will however give them access to the computer such that they can do the numerical/computational exercise in real conditions.