Report - SI1410 - 2018-01-24

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

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, lucie.delemotte@scilifelab.se

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 students present the outcome of the workshop in groups and where the problems are solved with help from the rest of the class and the teacher) 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 no 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 in failed on the exam.
Following the 2016 course evaluation, the structure of the course was modified extensively. 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. This course offering has led to a global increase in the student's satisfaction.

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 reported time spent is around 12-14 hours per week. This is reasonable for such a course but could be increased. In 2017, all the students did not understand that the workshop was a minimum of time they should spend on the exercises. This will be reiterated.
Also the next generation benefits from the previous generation who let them know what is the difficulty of the course. The success rate could be higher and this may happen if students were devoting more time to the course. The students ask for more lecture time but I want to implement more of a flipped classroom approach. To do this, more material will be suggested to read/consume before the lecture. In particular, a video format will be encouraged.

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 have generally done well on the course. As expected, students involved in the activities (workshops, midterms) do generally better than the rest, with a few exceptions (students who do well without participating).
This class takes advantage of group work which is not appropriate for all students. They can opt out of group work if they decide so.

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?

This is generally perceived as a class where students work with interesting issues in an open atmosphere, try out their ideas while getting feedback to help them progree, where the students work together (with a few outliers).

The organization of the class seems satisfactory, except for the grading system which needs to be improved. Most of it is pedagogic problem, of taking the time to explain the complex grading system.

It is a difficult class , where a general comment is that putting in the effort at the beginning will be rewarded and the course makes more and more sense as time goes by. The students appreciate the focus on key concepts (due the organization in modules) but 1/3 feels like their background knowledge is not quite sufficient.

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 grading system needs improvement.
the students don't necessarily choose how to learn, which is difficult to address in such a class.

The students like the group workshops but would like a teacher there to be able to answer questions.

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?

Students liked that they were engaged in the class through participation in workshops and computer labs. It appears the learning experience is enhanced by the active learning activities. The course structure is appreciated, it gives clarity to the students.

The pace of the lectures is too high. The students generally refuse to do background reading and find the pace of the lectures too fast. Some would like 2. I give lecture notes so they can work though things alone but I understand an extra lecture would be more comfortable. I still want to push the students to study more on their own, because they can handle it.

The advice students give is to participate in all activities, including the midterm, the workshops and the labs. I agree.

PRIORITY COURSE DEVELOPMENT
What aspects of the course should primarily be developed? How could these aspects be developed in the short or long term?

The grading system will be improved following a grading class I am taking this semester.
I would like to produce video content that the students can view before the class so the lecture time is enough. This will be done next year.

Course data 2018-01-24

SI1410 - Basic Modeling in Biotechnology, HT 2017

Course facts

Course start:	2017 w.35
Course end:	2017 w.43
Credits:	6,0
Examination:	LAB1 - Laboration 1, 1.5, Grading scale: P, F
	LAB2 - Laboration 2, 1.5, Grading scale: P, F
	TEN1 - Exam, 3.0, Grading scale: A, B, C, D, E, FX, F
Grading scale:	A, B, C, D, E, FX, F

Staff

Examiner:	Lucie Delemotte <lucied@kth.se>
Course responsible teacher:	Lucie Delemotte <lucied@kth.se>
Teachers:	Lucie Delemotte <lucied@kth.se>
	Annie Westerlund <anniewe@kth.se>
Assistants:	

Number of students on the course offering

First-time registered:	49
Total number of registered:	54

Achievements (only first-time registered students)

Pass rate[1] [%]	73.50%
Performance rate[2] [%]	84.20%
Grade distribution[3] [%, number]	A 11% (4)
	B 25% (9)
	C 33% (12)
	D 14% (5)
	E 17% (6)

1 Percentage approved students
2 Percentage achieved credits
3 Distribution of grades among the approved students