Course code: DD2417	Course name: Language Engineering	
Academic year: 2021-22	Period: 4	
Credits: *7.5*	Number of students: 47	Answer rate: 0.41
Examination rate: *0.79*	Learning activities: 9 pre-recorded video lectures, 4 coding help sessions via Zoom, 5*5*40 computer assignment presentations, 7 h project presentations	
Course modules and credits: Computer assignments 6hp, consisting of 4 programming assignments which are done individually. Mini-project (done in pairs): 1.5hp		
Teachers: Johan Boye, Viggo Kann TAs: Dmytro Kalpakchi, Agnes Axelsson, Erik Ekstedt, and Ronald Cumbal		
Examiner: Johan Boye		
Course responsible: Johan Boye		

Results

47 students registered for the course this year, of whom 37 completed the course. In addition, 2 students completed the assignments but not the project, and 2 other students completed the project but not the assignments.

Changes from previous years

This was the first year of the new extended version of the course (with new course code DD2417). In addition to the four individual assignments, there was now also a final mini-project to be carried out in groups of two. To this end, we proposed 6 different project topics between which the students could choose. The students could also propose their own topics. Several of the individual assignments were updated and, in the case of the last assignment, extended with a new translation task.

I decided to keep the organization with pre-recorded video lectures, with the exception of the first lecture which was held in class. At course start, the pandemic had subsided to the point that, in retrospect, all lectures could have been held in classroom, but of course I didn't know that when the course was planned. Instead, to introduce more interactivity into the course we had 4 coding help sessions which were administered by Dmytro and myself via Zoom. To get help, students could start their own Zoom room and place themselves in a queue via the "Stay-A-While" queueing system. The

teachers then went from Zoom room to Zoom room, helping the students out. This turned out to work well, although the help sessions were not used very much by the students.

The computer assignments were all examined through Zoom. For each assignment, each student booked a 30-minute slot with a TA, in which the students ran their programs, explained their code, and answered theoretical questions.

Course questionnaire

[Answers can be found here (link)](link).

Strong points of the course

The courses continue to be appreciated, judging by the course survey. The ratings of the students that answered the questionnaire were:

- "I worked with interesting issues": 6.4 / 7
- "The course was challenging in a stimulating way": 6.4 / 7
- "I could practice and receive feedback without being graded": 5.6 / 7
- "The assessment on the course was fair and honest": 6.1 / 7
- "I was able to learn by discussing and collaborating with others": 5.4 / 7
- "I was able to get support if I needed it": 5.9 / 7

The video lectures seemed to have been appreciated, probably because they were pre-recorded and edited, which made them concise. The students seem to appreciate the practical, implementation-oriented design of the course. The Canvas discussion forum seems to work quite well as a place of information exchange: students were asking questions, and Dmytro and I were answering them (in some cases, also other students were answering questions, which is very nice to see).

Weak points of the course

- Some of the code skeletons of the individual assignments would have needed more comments, as pointed out by several students.
- There wasn't enough time allotted to the project, as I wasn't sure whether or not it is OK to schedule project presentations in the exam period. As a result, the project presentations were scheduled on the last day of study period 4, leaving less than 2 weeks between the deadline for assignment 4 and the deadline for the project.
- The prerequisites of the course are just one programming course + one statistics/probability course (no machine learning), which made two students with no machine learning background at all to sign up for the course. While they actually pulled through and passed all assignments, they had to work very hard and spend a lot of time on the course. I don't want to change the formal prerequisites, but I will add a recommendation of having passed at least one machine learning course.
- Students with a lot of machine learning background will experience that this course repeats material they (should) know already. On the other hand, only one student actually complained about this. As long as the lectures consist of prerecorded videos, there is always the option of skipping videos or parts of videos that cover known material.

Changes for next year's edition

As an extra question on the course questionnaire, I asked whether or not we should keep the format with prerecorded video lectures or go back to in-class lectures. Most students seemed to prefer the video lectures (see the course questionnaire), although several students proposed that they should be complemented with some in-class activities as well. For next year, I will keep the video lectures, but think about adding a couple of problem-solving and discussion seminars. One of these seminars will be an introduction to Pytorch, which was not covered very well in the lectures, although assignment 4 depended on Pytorch knowledge. I will also go through the skeleton code and add more comments.

Course responsible: Johan Boye