**Course evaluation by course organiser**

To ensure that course evaluations have an effect on teaching quality and the development of the course and to make sure that DIKUs teaching committee has a good basis for processing the student course evaluations please fill out this form. This is the course organiser´s own evaluation of the course. Please involve other lecturers and teaching assistants when relevant. Please send the evaluation to [vilu@di.ku.dk](mailto:vilu@di.ku.dk). Deadline: one week after reporting the grades in your course.

Find more information about the evaluation procedures here: <https://intranet.ku.dk/diku/teaching/evaluation/Pages/default.aspx>

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| Course block and year | Blok 2, 1 2019/2020 |
| Course name and number | Programmering og problemløsning (PoP) B1-2E19 |
| Your name | Jon Sporring |
| Which are the most common student’s comments? What are your own reflections about the student’s comments? (The student evaluations are at KUnet: SYSTEMADGANGE > Kursusevaluering SCIENCE (eng. Course evaluation SCIENCE). | **The students generally liked the exercise classes.** We have specifically designed the course to have twice the number of exercise class hours than lecture hours, which is appreciated, and which supports our pedagogical goal of make the course problem solving oriented. **We will keep the balance between lectures and exercise classes next year.**  **Several mentions that they liked the Study café.** This year, the course was moved to schema A (Tuesday morning and Thursday) in practice switching with DMA (Diskret matematik og algoritmer). In coordination with DMA we therefore also switch hand-in deadline to be no later than Monday evening and Study Café to be Friday noon. However, I wanted to ensure that the students had time in the weekend to recuperate, so we first attempted to set the hand-in date to be Friday evening, and later moved it to be Saturday evening. This caused a huge increase in the use of the Friday Study café and in general some stress among the students. **We will look at the organization of the workweek in relation to the hand-in deadline and the Study café.**  **Some mention that they only had time to focus on the hand-in and not the training exercises and that these we often very difficult.** This year we had 2 new educations on the course, and during the course, I was also in dialogue with representatives of the Machine Learning og datavidenskab educations. There could well be a correlation between those that found the hand-in exercises difficult and those that did not prioritize doing the training exercises. Further, the absence of DMA for these new educations may also mean that they spent less time thinking algorithmically, and thus, found the exercises particularly difficult. **For this reason, I have engaged a small number of students from all 3 educations (Datalogi, Dat-øk, Machine Learning og Datavidenskab) and a teaching assistant (TA), and together we will go through the main elements of the course (curriculum, lectures and exercise classes, workweek planning) and seek improvements. We call this our Følgegruppe.**  **The book divides the students: Some like it and some find it unsuited for beginners.** I’ve written the book over several years tailored to this course. The programming language, we use, is not a language for which it is easy to find quality information on the internet about, and therefore, the book is a prime source of information for the students. It is not yet printed but distributed freely to the students as a pdf. Some of the frustration, I’ve experienced with the students, is that the information rate is high and that the students need help to understand how to read a book of such density. Others have mentioned that they would like a close coupling between the hand-in exercises and the book’s material. There are a few sections, that I would like to improve for next year, but my feeling is that the book is of sufficient quality and suitable for this audience. However, **the book will be a major topic for the Følgegruppe, and particularly I will be seeking more information from the participants on what causes dissatisfaction, how the book can be improved, and how we can help the students to make better use of it.**  **Some students experience the course as being disorganized.** In my opinion, the course is well-organized: Our web-space has a simple structure with all the course elements presented at the beginning of the course. We use (almost) weekly worksheets, revealed a few days before the starting of the workweek and where the topics of the coming period are briefly itemized, the training and hand-in exercises are clearly stated. The book very strictly follows the 4 programming paradigms that we teach sequentially during the 2 blocks, and the teachers and the TAs have weekly meetings, where we ensure a tight organization and a timely return of the (almost) weekly hand-ins. I’m guessing that some of the reasons, why some may find the course disorganized is that the course has many participants, the pace is high, and programming as a skill has a high learning curve for many, which can make the course appear overwhelming and perhaps confusing. Many students also have to get used to the fact that programming exercises often have many, equally good solutions. **In our Følgegruppe, we will look for ways to clarify the course’ structure to help the students, who need a better overview, and ways to improve the worksheets to help the students better acquire the course curriculum with less stress. Also, the size of the course now requires 15 TAs, and it is a challenge to get enough time to discuss the details about the execution of the course on our weekly 45 min. TA-meetings. I think this causes more dispersion in how the exercise classes have been organized than previously and also more stress among the TAs. Some dispersion is an advantage, but particularly to reduce stress and allow the TAs to better organize their time, I will therefore together with the Følgegruppe make a TA-binder for next year, which details the plan for their work including a description of standard TA class.**  **Some mention that exercise 7 was too difficult.** On the course, we have running evaluation, where most a weekly but 2 have a 2-3-week duration. Each hand-in is quality checked by a teacher supplying a programming solution and a TA making a trial solution to ensure that the exercise has the desired focus and that there are not (too) many places, where a student may go astray. The two long exercises are completely new each year to remove the possibility of copying the previous year’s solutions. Exercise 7 is one of the long ones. It used to be a short exercise, but due to the replacement of the long exercises to ensure that the later long exercise was not skipped by the students, this year exercise 7 was made into a long exercise. However, for exercise 7, this quality control failed due to stress among the relevant TAs, and further, the topic as one that all TAs were comfortable with. Finally, due to the placement of the exercise, it coincided with week 9 and the autumn break. It was designed such that the students did not need to work during the break, however, both weeks did not offer regular exercise classes, which meant that many students felt, they did not get the support, they needed. **This year we will look at the placement of this exercise and increase the focus on quality control of all exercises with the help of the Følgegruppe and the TA-binder.**  **The quality of the lectures is discussed by several students.** Some find the superfluous, others find them disconnected to the exercise classes, some find that Lioma’s lectures are much better than Elsman’s and mine. During the 6 months, we experience that while most students attend the lectures in the beginning, in the end, only about 1/3 do. There is also a fall in attendance in the exercise classes, but this fall is less drastic. It seems that the major difference between Lioma’s and our lectures is that Lioma teaches at a late point of the course, she teaches slide-based and in a step-by-step manner slowly building up a complete solution, and in a way that speaks directly to the insecure student. We all use some form of interaction during the lectures (questionnaires, open discussions). I’m guessing that there is a correlation between students who have attended the lectures throughout the course and those that appreciate Lioma’s style of teaching. **In the Følgegruppe, we will talk about elements of the lectures that can be improved across all teachers.** |
| Did you go through the student evaluations in class? If yes, did that bring about further insights into the written student evaluations? | At the last lecture of the course, we discussed the evaluation. No more than 50 people attended. I showed the statistics and their comparison with the previous 2 years, and we had a general discussion. Particularly, we discussed the possibility of an alternative organization of the workweek and the hand-in deadline. This gave the student insights into the few degrees of freedom available. Also, a few apologized to me afterward about possibly having been too harsh in their criticism of the book. No new insights came to light in my opinion. |
| Which adjustments/changes/initiatives, if any, do you propose to address positive and negative student feedback? | As stated above, I’ve started a Følgegruppe, which will meet 3 times. Due to Corona and the challenge some students have in reading their KU-emails, this work has been postponed to blok 4. |
| What worked well in your course? Did something make a noticeable difference? E.g. a new teaching strategy, format for feedback or type of assignments.  Which initiatives, if any, could be inspirational for other course organisers? | What was changed this year:   * The course was moved from schema B to A * The large assignments were placed earlier on the course. * Lioma was reduced in teaching due to calendar conflicts.   The following worked well:   * The balance between lectures and exercises. * The language (being unknown at the start and including good support for all the major programming paradigms). * The Scratch introduction week. * The exercise classes.   The following worked less well:   * Exercise 7 caused unnecessary stress among the TAs and students. * The students on the new educations seem to find the course particularly hard   The following initiatives for next year have been initiated:   * A replacement for Lioma is sought since she has to be reduced in teaching duties. * The Følgegruppe has been created consisting of students from all 3 educations, a TA and teachers. The group will meet and discuss central elements and seek improvements that increase learning, reduce confusion and stress among the students and TAs. |
| Which adjustments, if any, to the course description, is urgent? | None. |