Plan of Actions
DM534/DM558 Introduction to Computer Science
Fall 2016

Background. DM534 is a course placed in the first semester of the BA Computer Science programme (DM558 is the code when it appears in a side subject programme). This year, the course was significantly changed compared to previous years. The motivation for the change was a feeling that students starting on the Computer Science programme do not come here with an adequate perception of what it means to study. They seem trained to focus on "handing in something of the right format" rather than to focus on achieving an understanding of the principles of the subject matter. They often also have too low an expectation of how much work is necessary.

As a response to this, the format of the course was changed to consist of seven two-weeks cycles, each cycle containing lecturing, exercise classes, and an in-class 30-minutes multiple-choice test. Every multiple-choice test formed a part of the exam, contributing equally towards passing and combined constituting the entire exam of the course. Each cycle usually covered a single subject from Computer Science. The subjects and their levels were chosen to contain a certain amount of principles, the understanding of which would be a necessity to do well in the test. Via the seven cycles, the students would have repeated opportunities to experience 1) the need for understanding the subject matter, 2) the actual event of arriving at understanding, and 3) the amount of work (reading and exercise solving) needed for this to happen for them.

The lecturing in the cycles was distributed among the staff members, each being asked to find a subject of their liking possessing the above-mentioned qualities. The idea was that this would produce interesting subjects distributed across computer science in a hopefully representative manner, retaining some of the focus of the previous version of the course on illustrating and perspectivizing the nature of Computer Science and the content of the entire programme.

Statistics. Of the 91 persons appearing on the exam protocol, 76 passed the course, 10 participated in at least one multiple-choice test but failed the course, and 5 never participated in any multiple-choice test (and failed the course). Thus, among the students active at least at some point in time, 88.4% passed. Among all students, 83.5% passed.

In total, 41 students filled out the final course evaluation. A shorter mid-term evaluation was done live in class via PollEverywhere (hence anonymous seen from the students' side) and was in form a variant of "trepunkts evaluering".

Summary of course evaluation. The course evaluation is on almost all issues very positive. For most of the questions with numeric answers, 80–90% of the responses lie in category 4 or 5 out of 5. Most interesting is it that the students respond favorable to the new features and new main objective of the course: they like the exam form and they agree that the course has increased their focus on understanding and has given valuable feedback on the amount of work needed. Also notable, the perspectivizing qualities of the course seem not sacrificed: the students agree that the course gives good insights into what Computer Science is, and they find the subjects interesting. They also like meeting many different lecturers.

The more traditional questions on the quality of the various aspects of the course and the teaching (lecturing, organization, TAs,...) also receive the above-mentioned good levels of ratings, except for the quality of the slides, which is a bit closer to medium.

These numerical answers are much in line with the remarks in the textual answers, where positive remarks dominate. The most recurring negative remark is on the slides, which reportedly not always could function well as course material. The second most recurring negative remark is on some fluctuations in level of difficulty among the lectures.

The mid-term evaluation gave some of the same inputs (and no further ones).

Plan of actions. Being the first iteration of an experimental, new format, the course seems quite successful: many aspects turned out along the lines hoped for, and overall student satisfaction is high. Hence, we plan to continue with this format next year, focusing on polishing the roughest edges left, which are primarily the ability of the slides to function as reading material (or additional reading material should be supplied), and secondly some fluctuations in technical level among the lectures. Most lecturers this year had to develop all materials from scratch, while next year they can reuse these as a starting point for further improvements. Hence, such polishing should be well feasible. Additionally, this year's material is now available and can serve as inspiration and calibration among the lecturers.

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