Marco Chiarandini
Dept. of Mathematics and
Computer Science
Campusvej 55
DK-5230 Odense M
Denmark

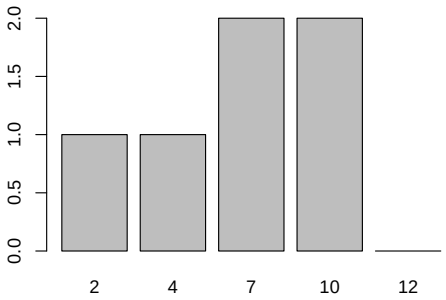
Phone: +45 6550 4031
Fax: +45 6593 2325
www.imada.sdu.dk/~marco
E-mail: marco@imada.sdu.dk

May 1, 2013

To
The IMADA Education Committee
University of Southern Denmark

DM825 - Introduction to Machine Learning
Action plan after students' evaluations

The course had 2 pass/fail obligatory assignments and a final written/digital exam with grade. At the beginning of the course the number of students registered in the BlackBoard system was 20. The number of students who submitted the two obligatory assignments was 7. They were finally all admitted to the written exam. One of them withdrew from the written exam. All remaining 6 students passed the exam. The distribution of grades is shown below.



After the exam 3 students filled the evaluation scheme and 4 did not. Unfortunately, the 13 students that drop out at the beginning were not registered in the BlackBoard therefore they did not receive the evaluation form.

This is a list of thoughts I made reflecting on the course.

- It is very disappointing from my perspective to receive feed-

back from only 3 students out of 20. I do not believe I should take any action on the basis of such a small number because their answers may be not representative. Hence the considerations that follow are based on my personal perception of things.

- I remain convinced that the content of the course is relevant for a curriculum in computer science education. I tend to like a statistical approach to the subject, which seems to be what students of computer science do not like. Statistics may not be anymore in the curriculum of all CS students arriving to this course. This means that in the future some may have not encountered the probabilities definitions used in the course. Probability calculus is instead taught in other obligatory courses: DM535 and DM538.
- In the future a course on data mining from another teacher may be offered at IMADA. This is likely to decrease the number of the students willing to take this course even though they do not overlap in topics.
- The second obligatory assignment consisted in asking the students to formulate two exam questions and to answer those posted by peers. This was done with the system PeerWise. The experience turn out to be very positive. Students' questions where very pertinent. The activity gave also to me the possibility to assess the level and the focus of the students. It is definitely and experience that I plan to repeat.
- At the exam there was too little time to carry out all exercises.

If the course is offered again I will consider the following actions:

- decide whether I want to keep the focus on the statistical background and provide better information on the content and prerequisites when announcing the course. For example, I will list as a prerequisite that some knowledge in probability calculus is required to take the course; I can also spend one lecture to revise material about probability distributions.
- if no other course is offered on data mining I will try to orient the course more on that direction, which is more algorithmic in content;
- improve the slides that were made for the first time in this edition, so that they can be used as lecture notes;
- reconsider the use of the text book: S. Marsland. Machine Learning: An Algorithmic Perspective. CRC Press, Taylor and Francis group, 2009. This would require a drastic change

in the organization of the course.

- simplify the exercises and focus them more on exercises that resemble those appearing at the final exam.
- change the form of final exam or shorten the list of questions at the exam or increase to 4 hours the time for the exam.

Marco Chiarandini