April 13, 2022

Course board meeting DD2420 Probability Graphical Models,

Alexandre Loiko, Ali Banaei Mobarak Abadi, Marcus Klasson, Erik Engelsson, John Folkesson

**John's Notes sent to Students for comments or changes:**

Course setup

- Lectures to give the broad overview of main topics
  - Lectures 1 should not have required reading.
  - Make better slides in tex.
- HWs for
  - feedback,
  - checking understanding,
  - passing grade. and
  - preparation for tutorials
  - No Hard to prove things, could be more theory.
  - Could announce that there is a re-exam.
  - Took 4-5 hours or less.
  - Could be a bonus point for doing it first time.
- Tutorial structure → grades:
  - Grade system was ok. Made your do the harder tutorials.
  - The allocation of points not a problem.
  - First three one point tutorials were not 1/20th as hard. Could be P/F.
- Time (20 hours per week?)
  - Very uneven tutorials went quick and reading was hard.
  - Perhaps extending the first weeks.
  - Hard if no prior knowledge, Ok for ML students

Tutorials:

- Content/topics:
  - Tutorial 4 Factor graphs should not be in matlab. Few points.
  - Imitations learning needed?
  - MCMC could include some framework code for example to visualize?
- Execution/Help:
  - not much coding,
  - email ask questions?
  - No link to discussion forum?
  - Tutorials were shallow and broad. The tutorials need little understanding to get through and students were not given deep knowledge and did not see the point of spending more time to really understand each part as that was not being assessed.
  - More guidance on how to approach the independent work.
  - Maybe have dedicated lectures on tutorials.
  - Prior knowledge is issue for how hard one needs to work.
- Seminars 4, 5, 7, 10 for interactive better understanding of material:
  - Worked well with seminars on the theory parts.
- Examination, written plus oral:
  - worked ok
- Book and other reading material
  - Gave up on book it was disconnected. Give optional reading explicitly.
  - The reading required in first weeks was heavy with much less latter.

- One ended up not needing to do the reading to do the course activities so one tended to stop.

Thanks Marcus,

Yes I agree, as always the best way is a bit complicated. too much strictness and the students end up not completing the course but some flex-strict is I think possible like a bonus if you do tutorial 3 in week 3 or something like that. I think all those students you talk about ended up failing anyway. So not worth the effort to get them through....

Thanks for everything.

/john

On 2022-04-13 11:53, Marcus Klasson wrote:

> Hi John,
>
> Just had two quick things now after the evaluation meeting:
>
> 1. I think it would be nice if the tutorials could have more strict deadlines, and with potential re-examinations later if there are students who just didn't manage to finish the tutorial within the strict deadline. I often found it a bit annoying when students wanted to present Tutorial 3 when I was mainly examining Tutorial 8-10. It forced me to have 4-5 tutorials in my mind all the time when I would have wanted to mainly focus on the harder tutorials. Luckily, I have been a TA for this course so long so there was no problem, but perhaps this can be a more tricky for less experienced TAs to have to go back to tutorials that should have been examined weeks ago.
>
> I think that strict tutorial deadlines (with briefly mentioned re-examination opportunities) would benefit
>
> - Future TAs so that they can focus on the harder tutorials and not having to keep many tutorials in their mind throughout the whole course
> - Students could encouraged to be more up-to-date on what is going on in the course at the moment. There were a bunch of students, that I had never seen earlier in the course, who just showed in the end of the

course and presented mandatory tutorials quite poorly because of procrastination. I believe that stricter deadlines could "save" us from that to at least some extent.

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2. Regarding Alex comment on Latex equations in the slides, I was recommended (by Chris Pek) to use Klatexformula for generating quick equations and copy-pasting them into slides. It has nice and simple GUI for generating the Latex equations and it also works well for Ubuntu: https://klatexformula.sourceforge.io/

Hope these comments were useful!

All the best,

Marcus

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Meeting protocol by **Alex Loiko**

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  - preparation for tutorials
  - No “Hard to prove” things, could be more theory. Would like some “hard to prove” things if clearly marked as not necessary for passing, but giving bonus points in tutorials.
  - Could announce that there is a re-exam.
  - Took 4-5 hours or less.
  - Could be a bonus point for doing it first time.
- Tutorial structure → grades:
  - Grade system was ok. Made students do the tutorial with more points; those were not necessarily harder.
  - The allocation of points slight problem: *approximate inference* tutorial were worth much more than partially *unobserved data, imitation learning, factor graphs*. OK given that full understanding of the former tutorials was harder to achieve, but there was little examination on this full understanding.
  - First three one point tutorials were not 1/20th as hard. Could be P/F.
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Course board meeting DD2420 Probability Graphical Models
Ali Banaei Feedback

Course setup

- Lectures to give broad overview of the topics
    - First lecture can have no needed reading
    - A lot of reading in the first few weeks.
    - It can be very hard for student with no prior knowledge to keep up with the readings
    -
- HWs
    - They could be solved in one day (needed more time than what was said but still solvable in one day)
    - The difficulty was OK.
    - There can be announced re-examination for HW
    - Bonus points for people who do it the first time
- Tutorial Structure -> grades:
    - Distribution of points was OK.
    - mandatory parts of the course can be changes to P/F.
- Time:
    - Course could be very hard with students who have not passed some ML courses
    - For me during the first weeks there was more workload
    - Lectures can have a little slower pace

Tutorials:

- Content/Topic/Execution/Help
    - It was possible to get help (also seminars helped in this matter)
    - A discussion room for the course can be useful

    - Since many students are more comfortable with python, converting Matlab codes to python and enabling students to choose can be helpful
    - In general (not necessarily MCMC) giving some base codes to students and asking them to complete the missing parts can make tutorials more straight forward and need less time to complete. By doing this more questions can be added to tutorials which force the students to go deeper into the topics.
    - We could get points of a tutorial without going very deep into subject.
- Seminars:
    - They are very helpful
    - Lectures dedicated for topics in tutorials can force the students to go deep into the subjects
- Examination:
    - In general grading system for the course and tutorials was fair
- Books and reading materials:
    - Preparing lecture notes with the material for each lecture can be great (also can solve the problem of “a lot to read” for each lecture). Notes can be in the form of 10-20 pages for each lecture and contain all the necessary topics. They can be in more details than slides but not as comprehensive as the book (for more information on topics there can be references to the book) and they follow the same notation. (Notes can help the course but they are **not** essential especially considering the time and effort needed to make them).
    - More connection of the reading materials and the lectures can be desirable.