

Course Report WASP Graduate School

Date: 2024-09-13

Authors¹: Benny Avelin, Johan Alvelöv, Fredrik Lindsten, Svante Linusson, Vera Koponen, Liam Solus

Graphical Models, Bayesian Learning & Statistical Relational Learning, 6hp

Semester: Fall 2023

Number of registered students: 48

Answering frequency (course evaluation): 14/37 = 38%

Examination results

Number of students examined: 37 (who handed in something)

Fail: 27 (%) (Most of which is partially complete)

Pass: 73 (%)

Brief summary of student viewpoints and suggestions

Results of WASP base-line quantitative questions

- What is your overall rating of the course (3)
- Did you enjoy the course? (3.14)
- Was it time well spent? (3)

Answers to free text-questions to be (shortly) summarized under “Strengths” and “Weaknesses”

- What was the best aspect of the course?
 - Module 1: Students appreciated learning the mathematical theory underlying graphical models, including seeing the proofs of key results. They also found the teachers and the practice sessions to be helpful.
 - Module 2: The students enjoyed the structure and contents of the module. There are positive comments about how practical the content of the module is and how we show the algorithms through examples. The teachers and lectures also received some positive comments.
 - Module 3: There were positive comments about using logic and combining it with probability. There were also positive comments about the lectures.
- What would you suggest improving?
 - Module 1: The students generally felt that the theoretical nature of the material made it challenging to go through in such a short time frame. Some

¹ The report should be written by the examiner together with the teachers and possibly others, such as teaching assistants

suggestions to help with this included extending the number of days from 2 to 3, and slightly fewer questions on assignments that speed things up while nailing down the more challenging concepts.

- Module 2: The students felt that the examination assignments required too much work and that a lot of time was spent on details in the implementation. Some thought that the datasets could have been chosen better to reflect real world data.
- Module 3: The comments of the participants were scattered in different directions and mostly concerned details. One person suggested that more material is added to the module and one person did not purpose of the module.
- What advice would you like to give to future participants?
 - Module 1: Take the time to understand the concepts presented in the preliminary material before attending the lectures.
 - Module 2: This module requires some programming and engineering and not only math.
 - Module 3: The comments were few and diverged a lot but it transpired a little bit that one should learn logic and not be afraid of it.
- Other comments. Is there anything else you would like to add?
 - Module 1: None.
 - Module 2: None
 - Module 3: None

Overall "Strengths" according to students²

- Proper mathematics with proofs
- Well-structured and lots of different concepts
- The connection between modules

Overall "Weaknesses" according to students¹

- The theory portions of the course, while appreciated, perhaps did not have enough time for students to process between the lectures. One suggestion is to extend the 2 day meetings to 3 day meetings with more time between lectures for processing the ideas.

Comments from teachers on the implementation and outcome of the course³

- Based on the student feedback, it seems that, for the most part, we solved the problem of early iterations of having too much work for the students. So our efforts to balance the workload seems to have worked. We have also succeeded to some

² Based on both quantitative results and key viewpoints from students' free-text answers

³ Including changes effected during the course

extent in better connecting the modules. However, a few comments suggest that we could do more in this direction. The students' performance on the assignments (and corresponding grades) are within reasonable expectation. Given that the workload is more balanced, important observations now seem to appear in the comments: Specifically, students seem to appreciate the more challenging material included in the course but would like more time to process these ideas between lectures. This conflicts with the traveling lectures and 2-day meetings approach where teachers have a limited amount of time to cover the necessary material for an entire module worth several weeks of the term.

Proposed changes/comments/measures

- Have another meeting/workshop (as we did last year) to help us find more ways to connect the modules from the student perspective.
- Experiment with 3-day meetings instead of 2-day meetings
- Hold to a hard deadline of reporting student grades (including all Fx) by the start of period 3.