

Report - DD2380 - 2022-05-09

Respondents: 1
Answer Count: 1
Answer Frequency: 100.00%

Please note that there is only one respondent to this form: the person that performs the course analysis.

Course analysis carried out by (name, e-mail):

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DESCRIPTION OF THE COURSE EVALUATION PROCESS

Describe the course evaluation process. Describe how all students have been given the possibility to give their opinions on the course. Describe how aspects regarding gender, and disabled students are investigated.

The students were invited to a course questionnaire for feedback and also to a discussion session to provide feedback on the course. The standard KTH course questionnaire LEQ did cover both questions on general course satisfaction and gender and disability.

DESCRIPTION OF MEETINGS WITH STUDENTS

Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)

The course iteration was held in hybrid remote mode with online lectures and online and in-person options for student consultation hours, presentations, tutorials and labs.

COURSE DESIGN

Briefly describe the course design (learning activities, examinations) and any changes that have been implemented since the last course offering.

The course followed the same design principles as in the previous iteration. The following represents a minor adaption of the design description from the last iteration:

The course is arranged as a series of lectures and three tutorial sessions to deepen the understanding of selected areas. Thanks to the breadth of AI, several lectures were given by guest lecturers, who are experts in the field (Johan Boye on Natural Language Processing, Mårten Björkman on Computer Vision, Katie Winkle on AI Ethics/Robotics and Josephine Sullivan on Machine Learning and Tollmar Konrad on an industrial perspective on AI). The rest of the lectures were given by Florian Pokorny and Andre Pereira and focused on topics from three areas: taming uncertainty, problem-solving, knowledge representation and planning.

A criteria-based grading scheme is used with TEN1 1.5hp consisting of a series of 9 online quizzes released after lectures, RAP1, 0.5hp an essay on ethics and societal aspects of of AI , and LAB1 4hp with 2 programming assignments, and a choice between an individual pen and paper assignment or an open-ended project on planning in teams of 4 students for higher grades.

The programming assignments are conducted typically in pairs and evaluated in Kattis, and also presented in person to teaching assistants. There is no written exam, the final grade A-F is determined from the grades of LAB1. Some minor improvements to the lecture slides (in particular Reinforcement Learning) were introduced in this course iteration.

THE STUDENTS' WORKLOAD

Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?

The students reported a bimodal distribution of workloads with two dominant peaks at 12-14h and 18/20h/week. Compared to some of the past course iterations such as 2020, there seem to be fewer students that report very high workloads above 20h/week. It is not clear what the reason for this change is - It may be that after a second year of online/hybrid courses caused by COVID, students are now more comfortable with this approach to work and to self-manage their time more. The student comments also seem to indicate that the workload is set at a reasonable level.

THE STUDENTS' RESULTS

How well have the students succeeded on the course? If there are significant differences compared to previous course offerings, what can be the reason?

The student's results were broadly in line with past iterations of the course.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Summary of some interesting comments from the open questions:

Positive feedback:

- students appear to appreciate the teamwork/group work approach of the course
- students broadly liked the practical assignments and that no written exam was set for this course
- students found the course interesting and engaging

Critical feedback:

- some students felt the TA questions could be improved
 - challenges in understanding probabilistic aspects of the course were mentioned by a student
 - some students did not like that they only had to fill in a few critical lines for the RL/search assignment - desired to implement algorithms from scratch
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SUMMARY OF STUDENTS' OPINIONS

Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

See above.

Regarding the critical feedback, the first two points are areas of improvement, while on the third is more of a point of discussion since implementation from scratch for all assignments may also cause student difficulties due to variations in programming skills.

OVERALL IMPRESSION

Summarize the teachers' overall impressions of the course offering in relation to students' results and their evaluation of the course, as well as in relation to the changes implemented since last course offering.

The course seems to have reached a steady state where it seems to run without major challenges. Compared to the last course offering we only implemented very minor fine-tuning of the course, e.g. by improving lecture slides a little.

ANALYSIS

Is it possible to identify stronger and weaker areas in the learning environment based on the information you have gathered during the evaluation and analysis process? What can the reason for these be? Are there significant difference in experience between:

- students identifying as female and male?
 - international and national students?
 - students with or without disabilities?
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There were some minor differences in how student groups answered the survey - students identifying as male ranked questions 22, 21 and 15 regarding collaboration and support higher than students identifying as female, while the latter responded more positively to question 4 regarding finding the course challenging in a stimulating manner. International exchange students also reacted more positively to question 4 than other student groups.

PRIORITIZED COURSE DEVELOPMENT

What aspects of the course should be developed primarily? How can these aspects be developed in short and long term?

For the next iteration of the course, the following areas of improvement are suggested:

- revision of slides to further improve clarity. In particular regarding probabilistic reasoning.
 - training of TAs and questions: improve TA questions and iterate on preparation of course TAs
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