

Report - DD1420 - 2022-06-07

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 course was evaluated by means of the standard LEQ course questionnaire. This questionnaire captures both numeric and open feedback as well as aspects regarding gender and disability. We also received feedback directly from students via email and during course meetings.

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.)

DD1420 is a newly introduced course. This iteration was the first for this course. A flipped classroom approach was employed with newly developed lecture material being available online via a course website. Help sessions and summary / discussion lectures that were held online were also offered to the students.

COURSE DESIGN

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

The course employs a flipped classroom approach. The course is intended as a first course in Machine Learning for students that are interested in becoming experts in the field.

DD1420 uses continuous examination - there is no final exam, the grades are determined by student work throughout the course. Some components are pass/fail, while others have an assigned letter grade. Concretely, the requirements to pass the course are:

PRO1 1.5 credits - Complete Lesson Assignments (watch the Video Lectures / read all Lecture Notes (Links to an external site.)). Grade: P/F
PRO1 1.5 credits - Pass every Practice Quiz with a score of >80%. Grade: P/F
INL1 3.0 credits - Exercises. These account for 50% of your Grade: A,B,C,D,E,F
TES1 3.0 credits - Complete the Summary Quizzes and participate in Discussions. These scheduled quizzes account for 50% of your Grade: A,B,C,D,E,F

More details can be found in the course syllabus and ILOs.

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 questionnaire revealed a wide spread of perceived workload ranging from 6-8h/week to >41h/week with two modes of the distribution around 18-20h/week and 9-11h/week. Some of the differences in perceived workload are likely due to the flipped classroom structure that requires some adjustment in learning style from the student. Furthermore, in this first iteration, the students had initially some difficulties in completing the first modules that resulted in some initial worry among the students that the workload would be too high. Based on the continuous student feedback gathered, we then finetuned the workload requirements soon after the start of the course.

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?

In this first iteration, the grading was lenient. This resulted in the majority of students obtaining excellent results.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Aspects to improve:

- the students reported a strong variability in required workload between the course modules.
- some of the course material was not ready to release at the beginning of the course but was only released incrementally
- delays in grading of course could be avoided in future iterations of the course

Positive aspects:

- consensus was that students learned from concrete examples they could relate to
- the lessons were reported to be interesting and practice quizzes were perceived as helpful
- continuous assessment approach and teacher/TA approach to listening to student concerns was appreciated

SUMMARY OF STUDENTS' OPINIONS

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

See above.

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.

This was the first iteration of this course design.

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?**

International students reported more positive feedback, possibly to the novelty of continuous assessment/flipped classroom approach for this student cohort compared to local students.

PRIORITIZED COURSE DEVELOPMENT

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

- One area of improvement is to adjust for the varying background skill levels of the students by providing a module 0 that reviews basic concepts used in the course, such as covariance matrices and multivariate Gaussian distributions.
 - The addition of pre-recorded video lecture material to accompany the online course notes.
 - Integration cross-references between individual modules to showcase connections across sub-areas of machine learning.
 - Fine-tuning of grading criteria and instructions to ensure appropriate work-load and difficulty level is achieved.
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