Report - FSM3001 - 2021-11-09

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.

All the students were given the opportunity to fill in the course evaluation. This also includes students who were not officially registered but attended the course. We gathered as much feedback as possible because this course was offered for the first time at the PhD level. Because we wanted to obtain as much feedback as possible, we incentivized answers of the course evaluation by prioritizing those who replied the questionnaire in the exam grading. The students filled in the standard questionnaire in Canvas plus a list of 10 additional questions for further input.

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.)

We had several discussions, both in formal and informal settings, with a wide range of 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 was offered as a PhD course for the first time. We have two types of lectures:
- Theory lectures: the concepts are covered from a theoretical point of view, although they also include hands-on code demonstrations.
- Practice lectures: these include workshops for code implementation, as well as activities aimed at developing the project course. The latter involve presentations, discussions and Q&A with instructors and assistants.

The evaluation has three parts:
- 4 homeworks to be submitted in Canvas, including theory and practice (codes).
- A course project conducted in groups of 4/5. This includes a final presentation and a final report, and involves actual research problems from the students.
- A written exam, based on a selection of questions provided in advance to the students.

THE STUDENTS' WORKLOAD

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

The course has 7.5 hp delivered in one period. This corresponds to 5 weeks of full-time work (200 hours); around 20 h per week over the period. The average workload reported by the students is slightly below this, although the comments indicate that this is a more demanding course than others. This may be because the concepts are quite new to the students, as opposed to what happens with other courses, in which the new concepts are similar to what they have studied before.

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 results are more than satisfactory. Every student passed the exam, the homework solutions were of high quality, as well as the projects.

STUDENTS´ANSWERS TO OPEN QUESTIONS
What does students say in response to the open questions?

The students were happy with the course. The following points were identified as questions to improve:

P1. For many students, the topics are completely new. It is hard to succeed using existing/previous knowledge. This is the reason it feels so hard.

P2. It is hard to decide about the project early on.

P3, Expectation on programming prerequisites in Python were wrong.

P4. Practical sessions were chaotic and unstructured. They also required some preparation on the students' part. It was difficult to fix problems on the fly.

P5. Grading of HWs is very delayed.

SUMMARY OF STUDENTS' OPINIONS
Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

This is also included in the previous point.

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 students were satisfied with the course, and very happy that this topic is now covered in their curriculum. They perceived the course as challenging and time consuming, but they appreciated the knowledge of the instructors.

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?

Some proposed solutions to the points raised above:

S1 Better reduce the content but stay longer on important topics. Have a list of suggested reading prior to each lecture. This allows us to go for PPT format (squeeze more in a single lecture) and do the re-caps with quizzes. Active learning!

S2 For master students: predefined projects split into 3 categories. We do the intro presentation, suggest the resources, and show the success cases.

S3 We had to be clear that completing the course would require the use of Python and some of the practical sessions will be given in it. Many students used python for the project! We could cover some basics in the first lectures. My lecture with Matlab was not fitting the complexity they faced later. It was a bit deceiving admittedly.

S4. Prepare the "unit test" to check the installation. Publish the instructions ahead of the meeting. Reduce the amount of unknown steps and reduce the complexity if needed. Make sure, we can get all things completed and tested at the end of the class.

S5. Have a set of "ready to be used" responses. Have an intense session on the grading. 1 hour where we identify the typical problems and define the strategy for TA.

PRIORITIZED COURSE DEVELOPMENT

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

The deep-learning section will be more focused, since the students showed interest in it. There is a plan in place for this. Some of the points of improvement:
- Improve DL part, adding some more intuitive concepts.
- Hw 4, problem 2 turn it into temporal predictions with LSTM.
- Change P1 to an extra theory session. P1 can come later.
- Move the final presentations one week after, and have the same number of lectures +1 for SVD.
- Remove Control and RL.
- Make closed projects for MS students.
- Combine HW1 and HW2.

OTHER INFORMATION

Is there anything else you would like to add?

We obtained a very high response rate in the course evaluation, around 30/38: almost 80%.