

Report - ID2221 - 2021-12-09

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.

I use two evaluations in my courses, one in the middle and one at the end of the course. The mid-term evaluation helps me understand the students' views about the running course, and if they have any comments, I can apply them. Of course, the mid-term update would be limited to small changes. However, I can improve the course using the final evaluation and take them into account while preparing the course for the next round.

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.)

In the course, we had two oral presentations for the lab assignments and the final project. In those presentations, we met each group of students (two students in each group) individually. However, due to the pandemic, we had all the meetings online over zoom. Moreover, we had two evaluations in the course, one after week three and one at the end of the course.

COURSE DESIGN

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

This course covers various advanced topics in data-intensive computing platforms to store and process big data. The main objective of this course is to provide students with a solid foundation for understanding large-scale distributed systems used for storing and processing massive data. After the course, the student should be able to:

1. ILO1: explain different fundamental concepts of data-intensive computing platforms such as the shared-nothing architecture and dataflow programming model and explain how massive data processing platforms work.
2. ILO2: store and retrieve data in distributed stores, either on distributed file systems or NoSQL databases, and implement different queries over them.
3. ILO3: process different types of data, including structured, streaming, and graph using massive processing platforms, such as Spark and Flink, and apply machine learning algorithms on massive data, using applications such as Mllib.
4. ILO4: build advanced applications using data-intensive platforms, make scalable applications on a cluster, and process massive data.

The course consists of several tasks, in which each one assesses different ILOs.

1. Task1 (six review questions): through these questions, we will ask related questions about each lecture to motivate students to study the lecture notes and papers. (A, F)
 2. Task2 (two lab assignments): the lab assignments are designed to direct students to different types of challenges with storing and processing platforms. (A, C, E, F)
 3. Task3 (final project): the purpose of this task is to implement an advanced application on processing massive data (which should be proposed by students and confirmed by the teacher) on a cluster. (A-B for an advanced project, and C-D for a simpler project, F)
- Due to covid, we skip the final exam and the assessment was based on the above tasks. To pass the course, students should complete all tasks. Compared to last year, we updated the course grading and used the weighted average of grades in Task1, Task2, and Task3 to compute the final grade.

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?

Yes, and there is no significant deviation from the expected level of workload.

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?

Three students didn't pass the course, and more than 80% got grades C or higher.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

*What was the best aspect of the course?

Many of the students were happy about learning new technologies and found them useful and interesting. Moreover, many of them found the weekly review questions helpful.

* What would you suggest to improve?

The main complaint was about lab1 and the versioning of the tools given to the students. For next year, we should resolve the conflict among tools' versions.

SUMMARY OF STUDENTS' OPINIONS

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

The students were happy about the course structure, topics, and assignments. However, the issues of lab1 should be fixed for next year.

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.

Overall the students expressed positive evaluation of the course, with all LEQ statements scoring more than 4, with most of the statements scoring between 5-6. There were no significant differences in evaluation from different groups of students.

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?

The highest scores were on questions 16 (6.2) "The assessment on the course was fair and honest", 2 (6.1) "I explored parts of the subject on my own", and 6 (6.1) "The atmosphere on the course was open and inclusive", and the lowest scores were on the questions 5 (4.2) "I felt togetherness with others on the course", 15 (3.7) "I could practice and receive feedback without being graded", and 20 (4.1) "I had opportunities to influence the course activities". These are mainly due to the two reasons: (1) the course was given online, thus the chance of interaction is not as in lectures in class, and (2) the course had a relatively large number of students (118) and the team had very limited resources for giving feedback to the students.

PRIORITIZED COURSE DEVELOPMENT

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

We are restructuring some of the lectures by including emerging technologies and skipping some of the old ones. Moreover, the issues in the lab assignments should be fixed. The assessment model needs to be revised.
