Report - DD2525 - 2020-06-20

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.

Because of the extraordinary circumstance caused by COVID-19, we decided from the very beginning to put extra time on close interaction among the teacher, students, and TAs. Students were given the possibility to ask questions during the online lectures, breaks, and lab sessions,as well as using standard channels like Canvas and email. Moreover, the teacher allocated 2 hours/week to online office hours for one-to-one meetings with students. Finally, we assigned 2 course representatives early on in the course to gather feedback anonymously from students and report it to the teacher.

These channels, particularly the office hours, resulted crucial in receiving feedback as the course was running and taking on-the-fly countermeasures to improve aspects of the course. At the end of the course, a course evaluation was sent out to all students and, in addition the standard questions from the course evaluation template, we asked questions to assess specific aspects of the course (labs, project, online teaching). Each graded moment of the course was accompanied with an optional one-to-one meeting between the teacher and students' groups. After the final workshop, we organized a course analysis meeting between the course responsible, course representatives, TAs, and the programs' PA.

Our of 39 course participants, the course was attended by 3 female students and 36 male students, while there were no disabled students. Unfortunately, the course evaluation does not convey any results about the minority gender, however, one-to-one meetings did not highlight any issues. We also had several students attending the course from countries with different timezone. Whenever possible, we tried to accommodate their needs, for example, by recording the lectures or providing on-demand 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.)

As mentioned above, meetings were arranged via virtual office hours on a weekly basis, course representatives, an optional final meeting with student groups after the course completion, as well as a course analysis meeting with course representatives, TAs and the PA. We also had one-to-one meetings on-demand bases, whenever requested by the students.

COURSE DESIGN

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

This was the very first offering of the course. The course consists of lectures and labs sessions, typically one lecture and two lab sessions per week, including one invited lecture. The lectures put emphasis on key concepts of the topic at hand, while lab sessions are dedicated to practicing those concepts with hands-on exercises, tutorials, and programming assignments. The examination consists of three graded labs and one graded project. In the spirit of close student-teacher interaction, the labs were presented to the TAs, followed by a report graded by the teacher. The project was also presented to the teacher and to other students in the form of a final workshop, followed by a final report. To facilitate and monitor the progress on the project, we used three phases: (1) a project proposal by groups of 2 students; (2) a lightweight project review by opponent groups; (3) project presentation at the final workshop; (4) submission and evaluation of the final report.

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?

We did not see any increase of students' workload for the course. The course evaluation results show that the majority of respondents spent between 12 and 20 hours per week. The students thought that the workload was just right.

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?

Initially, the course had 42 registered students of which 2 students dropped out at the very beginning and 1 student dropped out after the second week of the course. Out of 39 students 35 completed the course and 2 students completed only the labs. The distribution of course grades is as follows: 14 students received grade A, 6 students received grade B, 9 students received grade C, and 6 students received grade D.

STUDENTS´ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The course was received very well by the students. They very much appreciated the combination of the conceptual aspects with practical aspects, which, as they put it, felt that they were working on real-world problems. In response to open questions, students emphasize the following points:

1. Both labs and the project were highly appreciated by students, although some point out that the project was could be improved when it comes to the grading criteria.
2. The course handled remote teaching very well, although one student points out that sometimes it made it difficult to concentrate during lectures.
3. The course structure, lecture-labs-project, was evaluated as excellent.
4. About the labs, students liked that they were centered around breaking and fixing security issues in realistic applications. Suggestions for improvement are include issues with tool installation for Lab 1.
5. The course was highly recommended to future participants with several students claiming that this was the best course in security they had taken.
6. Students liked that the project was open and that they could pick their favorite topic. They also propose to delay the project proposal deadline and to have mandatory progress meetings about the project (such meetings were not mandatory for this instance of the course).
7. Lab sessions could be extended with exercises on the Android Security module
8. Quizzes could be helpful during lectures, especially if the course is taught remotely.

SUMMARY OF STUDENTS' OPINIONS

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

The outcome of the questionnaire and meetings with students show that the course was a clear success and they highly recommend it to future participants. See below (Analysis) for a detailed analysis of the results.

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 learning environment seems to have been perceived very well by the students. This is clearly reflected in the course evaluation as well as in personal feedback from the 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?

Several aspects of the course stood out clearly during the course evaluation an analysis. Students worked with interesting issues and were able to get support if needed (6.8/7). They thought the course was challenging in a stimulating way, using concrete examples they could relate too, where key concepts were given high priority.
Their background was sufficient to follow the course and they were able to collaborate and discuss with others (6.5/7). Other appreciated aspects were the usefulness of course activities to achieve ILOs efficiently and the fair and honest assessment on the course (6.4/7).

The evaluation of the other questions was also rather high, however, we think that there is room for improvement when it comes to the ILO (5.2 /7), practice and feedback without being graded (5.5/7), and course activities enabling students to learn in different ways (5.5/7). We believe that this is due to the lack of exercises for the Android security module of the course, which we plan to improve for the next course instance.

Neither the students nor the teacher noticed any differences in the above-mentioned categories. Minor difficulties were due to students located in countries with different time zones, however, this was accounted for by recording the lecture videos and having one-to-one meetings.

PRIORITIZED COURSE DEVELOPMENT

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

Planned changes for next year:
1. Improve the grading criteria for the projects
2. Create exercises for Web Security and Android Security
3. Prepare short quizzes during the lecture (especially if lectures continue to be held remotely)
4. Improve logistics with Zoom and its queuing system
5. Delay project proposal

OTHER INFORMATION

Is there anything else you would like to add?

The results of the course evaluation questionnaire were discussed in a course evaluation meeting on June 18th, 2020 between the course representatives (Fabienne Reiz), TAs (Amir M. Ahmadian and Javier Cabrera Arteaga), PA (Philipp Haller), and course responsible and teacher (Musard Balliu)