



Report - SH2314 - 2021-07-01

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 small number of students, there was no course committee. However, I asked some of the individual students for feedback on occasions when I was talking to them during the course. I also received some spontaneous feedback from students via email. After the course, a course survey was conducted, and four out of seven students responded. Because of the small number of survey respondents, it is not possible to break down the survey results based on gender and ability/disability. However, the survey included a question allowing the students bring up issues related to these things: "Did you perceive the course climate as welcoming and inclusive, both towards you and other participants? If not, feel free to suggest what could be improved."

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.)

I took the opportunity to ask for feedback when I was talking to individual students anyway, for example in coaching sessions.



COURSE DESIGN

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

The instruction consisted of fourteen classes and one lab session (done remotely due to Corona). The classes consisted of lectures over zoom, interspersed with some active-learning exercises such as small anonymous quizzes, or challenge problems that they were encouraged to think about. On some occasions, I organized in-class problem sessions where the students formed groups and worked on a problem together, such as searching for information in the online x-ray data booklet or solving a small numerical exercise. This was made possible by moving a small part of the lecture material to two online video lectures of 15-20 min.

A small anonymous survey was conducted before the course in order to get an idea of the students prior knowledge in this field.

In addition to the scheduled classes, online office hours over Zoom were organized approximately once per week, where the students would typically ask questions related to the homework. I also offered the students to schedule one-on-one coaching sessions, where they were encouraged to ask more general questions about the course or about research in medical imaging. However, only two students took the opportunity to do this.

The grading was based on a final written exam (over Zoom), for which 7 bonus could points (in addition to the 30 points of the exam) could be obtained by completing six optional homework assignments and giving one presentation. In addition, there was one mandatory assignment: a "virtual study visit", since a physical study visit was not possible due to Corona. In this virtual study visit, the students watched a series of online videos showcasing medical imaging equipment in clinical use and answered a short quiz.

The course design was very similar to the previous year, with some smaller changes: The addition of the virtual study visit, the introduction of office hours and coaching sessions, and the fact that the lab was carried out by controlling the lab setup remotely. The homework sets were made optional rather than mandatory, in agreement with the course syllabus.

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?

Since this is a 7.5 credit course running during one single period the expected number of work hours per week is $5 \cdot 40 / 10 = 20$. All respondents answered between 12 and 23 h which agrees with the expected load. However, three out of four answered in the range 12-17 h/week so it seems that several students needed slightly less work than intended.

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?

Out of seven registered students, five completed the exam (one attended but handed in blank). All these five students not only passed but received grade C or higher, including one A. I consider this to be a good result for the students that completed the exam. To increase the probability of students completing the course, it may be desirable to identify struggling students at an early stage and provide support.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

When asked about general feedback on the course, the survey respondents are especially appreciative of the homework problems. However, one respondent noted that the homework takes a lot of time and still does not give sufficient preparation for the exam, and suggested making the homework mandatory and expanding in order to replace the exam. Another comment pointed out that the course literature is hard to get hold of.

Feedback from the more specific questions includes:

- * the amount of lecture material that is given through videos is about right (and should not be given in longer chunks than 20 min)
- * The guest lectures were popular, especially the MRI one.
- * The examination was relevant in relation to the learning goals
- * Future students are recommended to focus on the homework
- * The lab instructions should be made clearer



SUMMARY OF STUDENTS' OPINIONS

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

Feedback from the students during the course was to a large part positive. An example comment: "The homework sets are very educational and fulfill the aim to give increased understanding, and the lab also." There was also some constructive criticism from students: that there were often minor details needed for solving the homework problems that were missing from the lecture notes, that the office hours could be scheduled closer in time to the hand-in deadlines.

Feedback in the course evaluation was also largely positive. On the multi-choice questions, most scores were high. The exception is 21 ("I was able to learn by collaborating and discussing with others") which received a lower score, and to a smaller extent 19 (The course activities enabled me to learn in different ways). To address these issues, more opportunities for group work can be introduced.

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.

My overall impression as examiner and course responsible is that the course has been quite successful and that the adaptations to the online teaching format have worked well under the circumstances, even if in-person teaching would have been preferable.

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 large amount of homework seems to lead to good results for course participants who work actively with the homework sets. However, it would be desirable to find ways of supporting struggling students from an early stage. Although several students made use of the office hours, there seems to be a reluctance among the students who is in most need of help to actually use these opportunities.

It is not possible to identify issues pertaining to different groups of students because of the small number of respondents. However, no respondent answered "no" to the question about whether the atmosphere was welcoming.

PRIORITIZED COURSE DEVELOPMENT

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

There is a plan to align this course with HL2019 in the future, to allow joint instruction for the two courses. Therefore, it is recommended that next year's course round is somewhat modified to agree better with HL2019, or a future course replacing HL2019. This could mean minor changes in the curriculum. Also, it may be a good idea to change the course literature to agree with HL2019. This will also eliminate the problem that the course book is hard to get hold of. Part of this process has already been started through the introduction of an alternative reading list. Another point that should be improved is to make the lab instructions clearer, as suggested by the survey respondents.