EP2200 Queuing theory and teletraffic systems

Course analysis

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.

This is a relatively small course with 8 master and 6 phd students with discussion seminars and problem solving. The course is evaluated also through free discussions with the students on the seminar, and through the questionnaire of the program integrating course of the program from where the large part of the students come.

FUNKA needs have been considered at the exam.

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

The course follows a flipped classroom setup. This has been implemented in the course round of 2023, and this is the second time we follow this format. Students watch videos and study slides and reading material at home. They also watch videos about with problem solving, and solve problems.

There are two times two hours seminars per week where the key parts of the theory is discussed and more advanced problems are solved.

In addition, there are weakly small assignments to ensure the students follow the material, three home assignments and a project. These moments need to be completed and are graded P/F. The course is closed with an oral exam, also developed in 2023. This final exam gives the grade of the course.

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?

Based on the student feedback the load is reasonable. The impression of the teacher is that the load could be increased.

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?

All students completed the course, many with good grades. The impression of the teacher is that the ambition of the examination can be increased after the two initial tests of oral examination.

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 flipped classroom setup gives room for more discussions. Since extensive course material is available on the course homepage, the flipped setup hopefully encourages the students to come to class, since the discussions there can help them with the most challenging parts of the course.

The oral exam is set up in a transparent way. As a teacher I believe it gives a very good and time-efficient way to measure the knowledge of the students.

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 be? Are there significant differences in experience between:
- students identifying as female/male?
- international/national students?
- students with/without disabilities?

The course works well for the students with the right background, that is with sufficient knowledge of mathematical modelling, and specifically probability theory. The first project on probability theory aims to help the students with less solid background. However, it seems that there is too much joint work, and not all student benefit from this opportunity.

The continuous small assignments help the students to keep the speed of the course and also ensures that the students start to study the material before the seminar, as expected by the flipped classroom concept.

We tried different solutions to receive questions from the students about the points they do not understand from the on-line material. There were not working, unfortunately.

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

In the upcoming course round the small home assignment questions will be revised, and new methods will be developed to get student feedback on hard to understand parts.

On the long term, the course needs to be reformulated so that it becomes clear that the content is not only for networking students.