

Kursanalys: DM1580 Video Technology 2022

Analysmallen uppdaterad feb 2020.

(An English version can be selected above.)

Med hjälp av detta formulär kan du skapa en kursanalys baserat på en LEQ-rapport. När du sparar formuläret kommer ett utkast att skapas. Så länge som kursanalysen inte är avslutad kan du redigera formuläret och skapa ett nytt utkast. Notera att en engelsk version av detta formulär används i rapporten, då systemet för närvarande inte stödjer flerspråkiga rapporter.

Kursanalysen kommer endast att vara tillgänglig för examinator och lärare på kursen. Ytterligare publicering och distribution sköts av kursansvarig lärare.

Course analysis carried out by (name, e-mail):

Haibo Li, haiboli@kth.se

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.

The course evaluation was given in five processes. First, the teacher asked all students for feedback on the course before lectures. Secondly, the course offered an open discussion regarding the course in the discussion channel in Canvas. We also called student representatives, PA, and course coordinators to the Link Meeting (Länkmöte) regarding courses. Fourth, we get written feedback on the course from Proint course (an integration course). The last, course evaluation was sent to all students to get feedback. Disabled students were given more time or allowed to use digital tools to do examinations.

DESCRIPTION OF MEETINGS WITH STUDENTS

Describe which meetings that has been arranged with students during the course and after its completion.

During the course, we called student representatives, PAs, and other staff to the Link Meeting (Länkmöte) where the feedback from students was formally given to the teacher, and the teacher responded and discussed how to adopt the suggestion into next year's teaching.

COURSE DESIGN

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

The course consists of lectures, exercises, labs, and projects. Course students were given a written examination at the end of the course. The learning goal for students is to acquire basic knowledge of video technology, gain experience through computer labs and develop insights.

A major revision to the course has been made this year including merging some lectures, adding two new lectures, Lecture Video Streaming II, and Lecture Machine Learning for Image And Video Coding, and introducing a video streaming lab.

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?

Yes, the students' workload corresponds to the expected level of 160 hours (40 hours/1.5 credits). There was not deviation from the expected.

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 statistics of the course grades of this year is following: A, 19%, B, 31%, C, D, E, 45%, F, 5%. There is no significant difference compared to previous course offerings.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

We have added the concept of "video streaming" this year. Therefore, we have added 8 open questions regarding the new concept in the questionnaire.

The feedback we got is that the students welcome the introduction of the concept of video streaming. For example, one feedback we got is

Q: We have added the concept of "video streaming" this year. Please give us your reflection on the new concept.

A: I think it was a really relevant addition, and one of the more interesting lectures actually.

SUMMARY OF STUDENTS' OPINIONS

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

The outcome of the meetings with students shows that video technology is an interesting and important topic in their study. They found that "the course is with great content". Besides basic theories, most of the students appreciated the labs and projects. They believed that they learned more tangible knowledge through computer labs. In addition, students welcomed the introduction of more content around streaming video. The feedback from the media students working at SVT is that "the course covers 80% technical competence needed in the working place". Students want to learn more about how machine learning can be connected to video technology.

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.

Video technology is one of the few engineering courses in the media program. Video technology is introduced and studied within a mathematical framework where all media signals including image video signals are mapped into high-dimensional spaces for analysis. Since video technology is the first course in the field of visual media, students have to learn some basic technical vocabulary first. From the results of the labs and written examination, one can see that the learning objectives have been achieved (only three students failed this year). In addition, we introduced more content about streaming video and one more lab in streaming video this year. The feedback from students was very positive. We plan to integrate the lecture and lab of streaming video into the course next year.

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 be? Are there significant differences in experience between:

- students identifying as female/male?
- international/national students?
- students with/without disabilities?

For the questionnaire sent out for course evaluation, we only got very few answers, which doesn't allow us to do any statistical analysis on it. However, one feedback gave us detailed suggestions on how to improve the course structure which we will consider in the course of next year. In addition, although we would like to introduce and students also want to learn more about streaming video, the lack of prerequisite knowledge of the Internet and networking greatly limits the introduction of the concept of streaming video.

PRIORITIZED COURSE DEVELOPMENT

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

1. Scheduling wise: we will improve the scheduling of the course time, particularly, find better lecture time slots for guest lectures, and divide the teaching into modules.
2. Course wise: integrate the developed streaming video parts, including lectures and lab into the course.

OTHER INFORMATION

Is there anything else you would like to add?

In future teaching, we will add more sustainability issues regarding streaming video into the course.