

Evaluation of NGEN06/EXTQ05 HT-20

This course has been running for more than a decade. This year around 20 students most were science students, but there were also two LTH students. 10 of the students conducted the written course evaluation and they were generally satisfied with the course.

Due to the pandemic situation the course was completely online. The students were explicitly asked to comment this in the evaluation. Most student appreciated the pre-recorded lectures (complemented with questioning hours) in the course, but some lacked the interaction with fellow students. Some argued that there are certain advantages of pre-recorded lectures over the traditional lectures on campus, since it facilitates reviewing the lectures afterwards. The course teachers have to consider the use of the pre-recorded lectures also when the pandemic situation has improved. However, in a general point of view, the students did not recognize any negative effects of distance online learning on their performance within the course.

Also, the exam was online. No student had commented this online exam in the evaluation. This is hopefully a sign of that the students felt that the exam was fair. Another reason is that the students are so used to online exams after this pandemic year so that they do not reflect on the situation. We had an open book exam, since it is difficult to control what the student read during the exam. From a teacher perspective the open book exam is good for half of the course (problem-solving) but for other parts of the course it really restricts the questions that could be asked. Some students have commented (not part of the evaluation though) that they really had no time to read the material during the exam, so they did not really have such much gain from the available literature.

The course was slightly changed this year. The part of map labeling and some details in algorithms were removed and replaced by two lectures of 3D GIS (City models and GeoBIM) and one tutorial type of exercise (in CityEngine). Some students argue that this part did not really fit well into the course, and the course coordinator fully agrees on this. This could have been caused by the fact that the remaining exercise were more about back-end principles and algorithms of GIS while 3D-CityModel exercise was the only showing one possibility of application without any further background knowledge. Teachers could maybe consider the exercise based on a conceptual modelling, taking a deeper look on a structure and semantic classes of CityGML or another 3D city standard. That might fit more into the character of the entire course. However, currently there is no better course to place the 3D GIS part (which is quite central, and several students conducted their master thesis related to this topic). The plan is to move the 3D GIS part to a couple of new courses in a few years' time. But until then we keep it as it is.

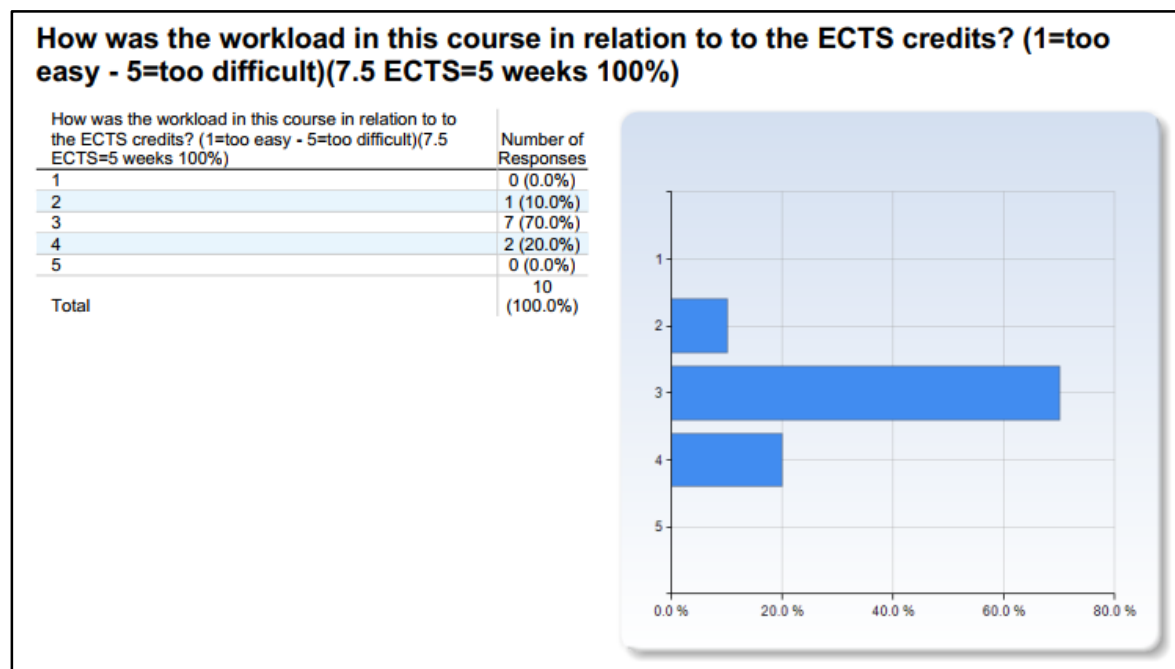
A common problem with this course has been the diverse background of the students. This was less of a problem this year, and most students seemed to have a sufficient background. Very few comments in the evaluation stressed that the theory (math part) was too difficult and in general the students performed well in the exercises and in

The (programming) exercises are a central part of this course and several of the students exemplify this when asked about what they liked most in the course. Students mostly appreciated the good structure of the programming exercise - it started with easier concepts and gradually becoming more and more challenging. The other thing was a possibility to improve programming skills what could be a quite helpful before the thesis project. There is no plan to change the type of exercises next year. But it will be more stressed that the programming exercises could be written in either Matlab or Python.

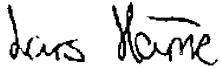
The scientific writing project worked well this year, and most students appreciated this part. The students found the time plan for the project was designed in a good manner. Moreover, the help and the feedback from the project teachers was very well-founded. The same thing can be pointed out as in the last paragraph, this project is very useful and helpful to establish a good base knowledge for scientific writing while considering that this is the last course before the thesis project. One question to next year is whether the project work should be graded and affect the final course grade.

Another change to next year, not discussed in the evaluation, is that the course material was added to the learning platform Canvas during 2020. The students are familiar with Canvas and it seemed to work well. But for the exercises the course used AC. AC is preferred both by the students (easier to submit and easier general overview of course exercise progress) and the teachers (easier to comment/correct). Hopefully we can use it also 2021, or that Canvas improve in their assignment handling.

The second part of the autumn year two (Web GIS and Algorithms GIS) is regarded as the hardest part in the Geomatics program (in terms of time spent for the students). But still it is not unrealistic, at least this is one interpretation of the course evaluation:



In the student's point of view, this was mostly related to extended content of the Web GIS course this year (an extra assignment and seminar were added). The payload of the Algorithms in GIS course was quite appropriate to the time framework and also credits obtained.

A handwritten signature in black ink, appearing to read 'Lars Harrie'.

Lars Harrie
Course coordinator

A handwritten signature in blue ink, appearing to read 'Peter Nezval'.

Peter Nezval
Student representative