Course analysis 2023

DT2212 Music Acoustics

Spring 2023, Period 3
2023-04-28 Anders Friberg

Requirements

Four written assignment	4.5 hp
Project work and report	1.5 hp
Two laboratory sessions	1.5 hp

Teachers

Anders Friberg (course responsible)
Sten Ternström
Karolina Shi (lab assistent)

Student Representatives

Helena Linder Miñambres
David Hurtig

Students

There were 13 registered students and nine passed the course with all required assignments at this point (May 2023). This small class of 9 active students made it possible to have good interaction and continuous feedback. In particular, since most of the students attended a major part of the lectures including common coffee breaks.

Changes from last year

A major part of the organization of course was kept more or less the same as the previous year. The matlab tutorial was changed and some of the help from Assignment 2 was incorporated into the tutorial instead. A recurring challenge is to fit everything within the rather tight schedule in a well-balanced way.

The main course book was changed two years ago. Thanks to the national agreement of access to research literature, several relevant books for the course are now available online including the course book. This significantly improved the possibility for the students to learn the theory.

Course meeting

After the course Anders Friberg had a meeting with the student representatives April 24, 2023. We discussed the course starting from the results from the questionnaire.

For the content we discussed the possibility to include more synthesizer material, for example, more support for developing audio plug-ins. As it is now, the course page promise more than is provided in the course regarding this content.

A positive comment was that the planning of all parts of the course was given at the start. This is very helpful and appreciated by the students.

The labs were also appreciated and considered more as a learning time than an examination (no lab reports required).

The use of matlab ok.

A suggestion was to put the last assignment before the project. Another possibility would be to have small assignments every week as in the math classes.

For the project, better grading criteria including stressing the importance of the report was suggested.

For the literature assignment, we could have something related to the project.

Questionnaire

The course evaluation was done in the last lecture in which the students filled in a questionnaire on paper. The responses were collected anonymously after the class.

The big advantage of this was that we obtained a response from all active students since participation was mandatory during this class. Obviously, this method is less feasible with larger courses due to the relatively extensive analysis of the answers in this case. All quantitative answers were on a scale from 1-7. The labels at the extreme points of the scales are shown below for each question.

Q1 What is your overall view of the course?
1=very bad/not at all, 7=very good/very much
Average: 5.9
Comments:

2. How do you perceive the course content?
Average: 5.7
Comments:
Would be nice to talk about electronic instruments
Some of the newer AI stuff could be interesting

3. What do you think about the level of the course?
too easy   too difficult
Average: 4.3
Comments:
Everything was kind of new to me but overall it went fine

4. How was your own knowledge level in relation to the level of the course?
too low   very high
Average: 3.2
Comments:
I was familiar with many concepts but the course helped me put words to ideas.
I never had a course related to music

5. What is your opinion about the workload during the course?
too little   too much
Average: 4.3

Comments:
Speech (?) synthesis had too little time
Just the interval between each task submission is too small, number of assignments fine

6. What is your opinion about the disposition of the course?
(Lectures, lab exercises, project work, reports etc)
very bad   very good
Average: 5.3
Comments:
Everything was nice. But I would have liked to have all the lecture slides available after each lecture, and some more info about how to prepare for a lab (what to read, what NOT to read)

7. What is your opinion about the lab exercises?
very bad   very good
   A. Guitar, average 6.2
   B. Singing, average: 6.0
Comments:
Very interesting and fun (both)

8. What is your opinion about the assignments?
very bad   very good
Average: 4.9
Comments:
Programming assignments were challenging to do to a high standard.
Please stop using matlab
I wish we had more lectures about matlab
Instructions for the Glockenspiel were not so clear. Code (skeleton) for voice lab was already finished.
I can imagine that some who lack coding experience could have issues with some assignments.

9. What is your opinion about the project work with report?
very bad   very good
Average: 5.3
Comments:
Very unclear grading criterion
I think the lab should take 2-3 weeks (for developing only)

12. How do you think the course administration has worked?
very badly   very well
   A. Handing out material, handouts, selling literature, average: 6.0
   B. The course website, average: 6.4
Comments:

13. Has the course helped you to develop your capability for oral communication?

not at all   very much
Average: 4.4
Comments:

14. Has the course helped you to develop your capability for written communication?
not at all   very much
Average: 4.8
Comments:

15. What is your overall opinion about the lectures?
very bad   very good
Average: 6.0
Comments:

16. How large percentage of the lectures did you attend?
Average 89 %

17. Was there any lecture that you found particularly interesting and useful?
Bowed string was really interesting
Synthesis
synth&vocal
speech
guitar and voice
I really liked the string lecture
synth, guitar, piano

18. Was there any lecture that you think could be left out of the course?
(no suggestions)

19. How well did the literature relate to the content of the lectures?
not at all   very well
Five answers average: 5.9
Three reported that they did not read it
Comments:
Maybe the literature dives too much in Math, which is later never used in the course

20. What concrete improvements do you think could be done in the course in the future?
Maybe a bit more time for the project. I really enjoyed working on mine and would've liked to take it further.
More time to develop our project maybe
So I had no experience in matlab, so it was a little hard to do the second and third assignments, otherwise I think the lecture were well explained, the teachers were so so nice, but it would have been better if we had more than one session to learn things about matlab.
Lecture slides could be released before each lecture so students could review it beforehand.

21. Is there any other aspect that you want to mention?
just want to say thank you for being nice and trying to help student as much as possible
Thanks for everything! The course content is interesting. So does the labs and assignments.

Suggested changes for next year

According to the answers of the questionnaires, the student meeting and the teachers experience we suggest the following changes:

- Incorporate parts of the matlab help for the singing lab into the tutorial.
- Add better grading criteria for project.
- Consider a larger focus on synthesizers including the possibility to develop audio plugins (for example in matlab, juce, or other programming environment).
- Add some recent AI approaches to synthesis.
- Try to squeeze in assignment 4 before project.

It can also be considered to make a change from matlab to python. However, the students this year had quite different backgrounds and some were quite happy with matlab and would have had more problems with python while some other students had the opposite standpoint. Furthermore, matlab has the support for developing audio plugins directly using matlab code.