



MWL

The Marcus Wallenberg Laboratory
for Sound and Vibration Research

COURSE EVALUATION AND ANALYSIS – NON-LINEAR ACOUSTICS 2017

Code: SD2180

Credits: 6

Lecturer and examiner: Leif Kari 070-798 7974 leifkari@kth.se

Prerequisites: Undergraduate courses in mechanics and mathematics.

Grading scale:

A, B, C, D, E, FX, F

Examination:

TEN1 - Examination, 6.0 credits

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade:

Written home assignments (TEN1; 6 university credits).

Number of students:

5

Grade of achievement:

100%

Grade of examination:

100%; only A (extremely good students this year).

Form of course evaluation and analysis:

The course evaluation and analysis is performed during the last lesson with all students present (that want to participate) and the responsible teacher. This year it was 5 students plus one doctoral students that was following the similar course SD3180. The specific questions raised are given in appendix (Course_Evaluation_Questionary_SD2180.doc). More questions were naturally brought up during the dialogue.

Date of course evaluation and analysis:

10 November 2017

Results of course evaluation and analysis:

- The previous studies for the students are sufficient to follow this course.
- The home assignments help the students to meet the learning objectives.
- The lecture notes help the students to meet the learning objectives.
- The lessons help the students to meet the learning objectives.
- The students prefer home assignments instead of a regular, final written examination. A final written examination is not suitable for a course like this was the common opinion from the students. Home assignments are much better.
- The extra written assignment helps the students to meet the high level learning objectives. Only one of the students did not do the extra written assignment.
- The seminar gives help to the students to meet the high level learning objectives. Only one of the students did not do the seminar.
- The students appreciate the flexibility to adapt the lesson schedule according to their overall schedule. There were a number of lesson clashes that were avoided and most of the students could, after the re-schedule, participate at all lessons. The re-schedule was done during the first lesson together with the students.
- The students like the pace of the course and that a week or so is given between the hand-out of the home assignments and the deadline of the hand-in of the home assignments.
- The tempo of the course is neither too fast nor too slow. It is suitable.
- The lesson room Munin is little bit too big for the small course (few participants). However, the many white boards and projector are good for the derivations in the course.
- The lesson room Balder is suitable for the small course (few participants). However, the small white board is not very suitable for the derivations in the course. The TV-screen is good for the course.
- The teacher showed more examples of non-linear acoustics in the beginning of the course. They were taken mainly from his own research and development with industry.
- The students would like to see some kind of real examples of non-linear acoustics, for example, showing non-linear waves on YouTube clips.

Modification of the course due to evaluation and analysis from 2016:

- The students would like to see more concrete examples non-linear acoustics (2016).
- The teacher showed more examples of non-linear acoustics in the beginning of the course (2017). They were taken mainly from his own research and development with industry.

General recommendations for the next time the course is given (2018):

- Keep most of the form of the course (lessons, time schedule, adaptive flexibility, home assignments, course literature, extra written assignment, seminar etc).
- The students would like to see some kind of real examples of non-linear acoustics, for example, showing non-linear waves on YouTube clips.