

Report - SD2175 - 2018-09-27

Respondents: 1 Answer Count: 1 Answer Frequency: 100.00%

Please note that there is only one respondent to this form: the person that performs the course analysis.

Course analysis carried out by (name, e-mail): Ciarán O'Reilly ciaran@kth.se

COURSE DESIGN

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

The course is structured into five modules (same as the previous offering):

1. FD Basics - This begins with a lecture with preparatory reading accompanied by quiz questions. Then Assignment 1 follows where the students work through a finite difference method computer exercise for a simple case and answer questions about the theory and implementation issues (e.g. errors, convergence, etc.). This assignment is then submitted as a written report and peer reviewed.

2. FE Core - As it takes some time to introduce the students to the core parts of the finite element method, this module consists of three lectures with preparatory read and quiz questions. There is no assessment in this module.

3. FE Implementation - This begins with a lecture with preparatory reading accompanied by quiz questions. Then Assignment 2 follows where the students work through a finite element method computer exercise for a simple case and answer questions about the theory and implementation issues (e.g. errors, convergence, etc.). This assignment is then discussed orally with each student during a 30-minute individual formative discussion (new format from this year's offering).

4. FE Applications - This begins with a lecture with preparatory reading accompanied by quiz questions. Then Assignment 3 follows where the students work through a finite element method computer exercise for an applied case and answer questions about the theory and implementation issues (e.g. errors, convergence, etc.). This assignment is then submitted as a written report and peer reviewed.

5. Project - The students begin with refining their project proposals and then carry out a detailed numerical analysis and evaluation of their results. They present their result at the course seminar where they are questioned by the examiner and other participants. This assignment is then submitted as a written report and peer reviewed.

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?

This is a nine credit course and students often underestimate the time required to complete the course. However, this year the extent of the work was stressed in the introductory lecture and there were no major delays in their progress. They completed the assignments on time.

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 grades were lower this year than previously - 2 Bs; 3 Cs and 2Es. This may be attributed mainly to the fact that this student group had almost no previous experience in acoustics and vibrations, which is not usual. This impacted on there ability to evaluate their numerical results and other high understanding ILOs that are associated with higher grades.



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.

Overall, I think the learning environment was good. As usual some students where more eager to participate in discussions than others, but all contribute to questions in lectures at some point. This was perhaps helped by the small size of the group.

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 for these be? Are there significant difference in experience between: - students identifying as female and male? - international and national students?

- students with or without disabilities?

Not available.

PRIORITIZED COURSE DEVELOPMENT

What aspects of the course should be developed primaily? How can these aspects be developed in short and long term? For the most part the previously implemented changes to the course have been successful and no major changes are planned. The main consideration for next year will be to consider how students with less experience of acoustics and vibrations can be help.

OTHER INFORMATION

Is there anything else you would like to add?