

Report - SD2175 - 2020-08-28

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):

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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 students are evaluated on the basis of 3 home assignments associated with modules 1, 3 and 4. These are compulsory (pass/fail) in order

to be able to pass the course.

The course concludes with individual projects, including a mid-term presentation for peer feedback (and evaluation of oral presentation skills), and a final assessment of the individual project reports.

The students have a major possibility to give their opinions about the course during a formative individual meeting with each student in the course about 2/3 into the course. This was introduced for the second time this year, and has been much appreciated by the students.

DESCRIPTION OF MEETINGS WITH STUDENTS

Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)

There is mainly a formative individual meeting with each student in the course about 2/3 into the course, in order to discuss assignment 2, assess and exchange on the current advancement of the student, and mutually get feedback on the course up to this point and a way forward. The feedback has been rather good, and engagement into the assignments and project too, but unfortunately too few students answered to the course survey.



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. 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 (format introduced in the previous offering).
- 4. FE Applications This begins with a lecture with preparatory reading. 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 was not reported this year. But usually, the workload is intended to be in line with the expected level, and there has been a correlation between the fact of not allocating the intended amount of time (through assignments and individual projects) and the outcome results.

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 have been generally higher than the previous years, due to a good engagement of the students and a positive group spirit despite the challenges associated with the online teaching of the course.

STUDENTS'ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Unfortunately not enough answers to get the results

SUMMARY OF STUDENTS' OPINIONS

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

The general feedback was that there is a high workload (though in line with the credits), but the students appreciated the applied nature of the course

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.

Unfortunately not enough answers to get the results from the course survey.

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?

Unfortunately not enough answers to get the results.



PRIORITIZED COURSE DEVELOPMENT

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

Maybe re-adjusting the balance between theoretical aspects, coding and practical problem solving. With a change of involved lecturers next year, there may be an opportunity to re-adjust this balance, including maybe coding of the method on a different platform.

OTHER INFORMATION Is there anything else you would like to add?