Report - SD2175 - 2022-02-10

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 third 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, again, 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?

Due to the lack of answers to the online course evaluation questionnaire, the answers were not disclosed to be, and I could therefore not conclude on the basis of the answers from the students.
However, the workload is intended to be in line with the expected level, and there has been previously a good correlation reported 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 results have been generally good, all the students who have reported their assignments and reports in due time having exceed grade C, with a few students performing at the highest level. There has generally been a good engagement of the students and a positive group spirit.

STUDENTS´ANSWERS TO OPEN QUESTIONS
What does students say in response to the open questions?

Due to the lack of answers to the online course evaluation questionnaire, the answers were not disclosed to be, and I could therefore not conclude on the basis of the answers from the students.

SUMMARY OF STUDENTS' OPINIONS
Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

Due to the lack of answers to the online course evaluation questionnaire, the answers were not disclosed to be, and I could therefore not conclude on the basis of the answers from the students.

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 have contributed to questions in lectures at some point. This was perhaps helped by the small size of the group, and a computer-lab- and project-based content of the course, which promotes a high degree of interactions. This is overall a very pleasant course to deliver with motivated students.

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?

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

One aspect that may be prioritized in the next offering, is the possibility for the most performing students to engage into more coding of the method in an environment such as FreeFem++, where the variational formulations are for instance more in focus for a diversity of problems.

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

No.