Report - SD2307 - 2019-02-21

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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COURSE DESIGN

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

The course consists of 15 lectures (30 h), a project task (intro, intermediate oral presentation 3h, final oral presentation 3h, report), and a written exam (5 h). The project task is carried out in groups of 2-3 students, including a partial presentation, final presentation, and report. Some students are from UIUC and take the course remotely.
Course responsibility was transferred between HT17 and HT18 so no major changes were implemented. Some video lectures were updated and some lecture times were adjusted to reduce the amount of overlap with the course on Electric Traction.

THE STUDENT'S WORKLOAD

Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?

According to the students, and considering 10 weeks of work, they did not use all the available workload. This can be misguiding, because of lectures take already 6h/week and all reported between 6 and 14h and some thought it was a lot of time.
There are comments about the concentration of workload in specific weeks i.e. weeks 1-3 in December, because of the Project Task setup.

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?

There are no major trend changes with previous years.
The students did well but not excellent. This could be because of the written exam: it has a lot of small questions which might make it difficult to respond correctly to all of them for those with good knowledge, while also easier for the student that have a poor knowledge to find some questions that they can answer, shrinking the gauss distribution towards the C grade.

OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?

It looks as the course is highly appreciated, with most areas above 6/7 points. No significant differences between male students and average values (no more different groups were displayed by the system due to the lack of data)
The results on Meaningfulness and Comprehensibility are very good.
Some comments point to different treatment between Vehicle Engineering program and non-program students, but there are no specific examples. As course responsible I will make sure that all the teachers are aware of this, in case some of us are doing this unconsciously.
Some comments point to the big difference between project task (good) and exam preparation (bad) regarding understanding the material; these comments appear in previous years evaluations also.
CONSTRUCTIVE ALIGNMENT has lower than average values for “Understanding of what is expected for a certain grade” (5/7) and “Feedback” (5,7/7).
The exam is quite extensive and the lectures follow the written material quite well, but there is a lot of info in the textbook and not all of it is included in the exam. There seems to be an apparent lack of hard-coupling between the lecture material, the textbook material, and the exam. From a teachers perspective it looks like the textbook is quite extensive and knowing which parts of the book were covered by the lectures is important for the students to do meaningful study sessions.
MANAGEABILITY is again quite good with two below-expected results, “I regularly spent time to reflect on what I learned” (5,4/7) and “I had opportunities to influence the course activities” (5/7)
The regular time for reflection can be due to the lack of applied calculations outside the project task, which is concentrated in December. The integration of the students in the tasks is quite non-existent, so it makes sense the second point.

ANALYSIS OF THE LEARNING ENVIRONMENT

Can you identify some stronger or weaker areas of the learning environment in the polar diagram - or in the response to each statement - respectively? Do they have an explanation?

MEANINGFULNESS
Some comments point to different treatment between Vehicle Engineering program and non-program students, but there are no specific examples. As course responsible I will make sure that all the teachers are aware of this, in case some of us are doing this unconsciously.
COMPREHENSIBILITY
Some comments point to the big difference between project task (good) and exam preparation (bad) regarding understanding the material; these comments appear in previous years evaluations also. Written exam will be developed in order to improve this, see below.
CONSTRUCTIVE ALIGNMENT
Written exam will be developed in order to improve this, see below. Also, visibility will be increased for the information about the lecture-chapter coupling in order to clarify it.
MANAGEABILITY
In order to improve the “regular own reflection”, the task could be extended for a longer period.
From a practical perspective, course activities in this course are quite standard. An effort will be done to study and understand how to develop the activities to improve this criterium (long-term modification).
OVERALL
The project task is the key component that binds together the course, although not fully manifested in the number of credits (3) and points (10, while written exam 40 points).
In order to increase the effect of the task in the overall course, the coupling between lectures, examination, and task will be increased:
- Task will start with the whole course so that the need for more regular time for own reflection is tackled.
- The task will follow the lectures on a weekly basis. Each week the theory and the work expected for the project task will be in phase so that students can immediately apply their newly acquired knowledge in the task, reinforcing deep learning.
- The lectures will be slightly rearranged in order to have a good phase with the task.
- The final written exam will be modified. More conceptual questions will be introduced, and the total amount of questions will be reduced. The questions will use their work in the project task as a basis for creating these questions. This is, if the students understand, were engaged, and have control over what happened in the project task they should be able to answer these correctly, and get a good grade.

ANSWERS TO OPEN QUESTIONS

What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?

Every single comment about the best aspect of the course mentions the Project Task.
About possible improvements, there are some key comments:
- Lectures not being very practical.
- The exam not being representative of the actual course activities.
- The lack of company related activities e.g. study visits or guest lectures.

Other comments mentioned the need to start early with the project, and the fact that following the project is a great pedagogic activity even for the examination.
Most if not all of these comments have been already addressed in the development proposals in the previous section.

PRIORITY COURSE DEVELOPMENT

What aspects of the course should primarily be developed? How could these aspects be developed in the short or long term?

Extend the project task to all the course and phase the lectures and the project task in a weekly basis.
Ensure that the exam questions the knowledge acquired during the project task.
Study the possibilities with Guest lecturers or Study visit. Introduce at least one of these.

OTHER INFORMATION

Is there anything else you would like to add?

All teachers and students were male. This poses questions about e.g. if there is a gendered course description or what could be done to be more attractive to female students. Adding female course teachers does not seem an option right now, but an effort will be made to invite female industry speakers or maybe contact person for study visits.