Report - SD2307 - 2022-03-11

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.
Short presentation of the Course Evaluation and Development from previous year during the first lecture of the course.
Spontaneous student feedback gathered during the course.
Learning Experience Questionnaire submitted after the exam was corrected, with personalized letter addressing the value of it and referencing the first day lecture. 5st (approx. 30%) answered, worse than previous years where up to 50% answered.
Afterwards all teachers, assistants and course student representative meet and discuss the LEQ based on this Course Analysis template.
Gender and disabled student data not visible because of lack of sufficient data. Gender balance poor, 4/15 female students. Better than previous years though. No female teachers, one female assistant.

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.)
Informal, spontaneous student feedback gathered during the course.
Course responsible has met one student representative from the Railway Engineering program for additional feedback in the context of their work in an Erasmus+ project. He also participated in the course development discussions.

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 an open book written exam (3,5 h). The project task is carried out in groups of 3 students, including a partial presentation, final presentation, and report. Some students are from UIUC and take the course remotely.
Changes from last year are focused on: □- Examination and improving even more its coupling to the project task activities. □- Two exercise solving sessions were also added for a smoother coupling between theory, project task and final examination. □- Earlier deadline for the Project Task and later exam day. □- A new lecture and a small project task on RAMS/LCC were introduced, with an invited specialist speaker from industry.

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?
The workload seems OK, the main time expenditure is due to the project, but it is not perceived as critical because of the relative simplicity of the rest of the course.

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?
Not a single student that took the exam failed it, which is better than it used to. This year a workshop on how to answer the questions in the exam was introduced, so the students had more experience and confidence on how to correctly address both the basic and higher level points on the different ILOs

STUDENTS´ANSWERS TO OPEN QUESTIONS
What does students say in response to the open questions?
Some students have challenges with technical language in English
The invited industry lecture on Maintenance is appreciated, even the task, but more time or a better planning is needed for it to be interesting.
Having several specialist teachers and the consequent in-class discussions are appreciated
Gauging lecture is perceived as too complex.
Field visit is appreciated. More of these are requested.
Changes in schedule were disturbing to some students as they plan their trips in advance.

SUMMARY OF STUDENTS' OPINIONS
Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.
The course is appreciated in general, with comments on improving specific themes or lectures. It is perceived as an easy course with a challenging/time consuming task, which I think is a fair assessment.
Due to the different teachers and activities, the organization is quite important so that students can plan ahead.

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.

From last evaluation, the short-term points were implemented: 1) coupling between lectures, project task and examination was improved 2) Exam was pushed later in the exam period and the project task deadline was set before Christmas for allowing the students more time between delivery of the task report and the actual exam. 3) Two in-class exercise sessions were created so that examples for the project task and the exam are showcased in advance. 4) a new lecture and task on RAMS/LCC.

No "Key Concepts" were added for the different lecture areas due to time constraints, which opens for a directed development in this course development loop.

On the implementations: □1 – see #3 below□2 – the exam was more successful, this could have been a reason for it. Different teachers wonder about the high pass rate this year, is it the exam format, the seminar, or the students? □3 – these were appreciated during the course, specially when it comes to understand what is expected from them in the Project Task. □4 – appreciated and told to stay, but needs better layout

The changes were minor but effective. Students were happy and had constructive comments about improvements in specific course activities.

No major issues were reported.

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?

The lowest score points were:

4 (5,6p) – The course was challenging in a stimulating way (Challenge)

12 (5,8p) – The course activities helped me to achieve the intended learning outcomes efficiently (alignment)

19 (5,8p) – The course activities enabled me to learn in different ways (variation and participation)

These are still good values so no major issues are detected. The low Challenge score agrees with the overall assessment of the course.

There are small differences when it comes to gender but there is a very low sample (5 st) so the results are not good for analysis.

PRIORITIZED COURSE DEVELOPMENT

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

Short term:

- Gauging lecture improvement – simplification and clarification.
- LCC lecture change – either increase the available time or decrease the content included.
- LCC task change – modify it so that it is part of the project task, not a separate one.
- 3 pilot lectures with the "key concepts" setup (see below)
- A new study visit will be introduced to the narrow gauge train station in the entrance of KTH steered by the course responsible.

Long term (in the context of the ASTONRail Erasmus+ project)
- "key concepts" setup for the lectures: create short pre-recorded videos on "Key Concepts", one for each lecture, about 10-15 minutes long, for a flipped-classroom type of setup where students must watch the video beforehand. Then students go into the actual lecture with this "known", and the lecture can start directly with more advanced topics, and then use those "saved" minutes for exercises, more discussions, or more advanced topics, depending on the specific lecture.