Report - MH2049 - 2021-08-18

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):

Björn Glaser (bjoerng@kth.se)

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.

Students were offered to fill out an LEQ, but only 4 out of 13 students handed in their answers. In addition, the teachers have discussed details of the course with the students throughout the course.

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.)

The teachers have discussed details of the course with the students throughout the course.

COURSE DESIGN

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

Objectives:
The course deals with:
-advanced knowledge for metal production, mainly via pyrometallurgy.
-advanced kinetic theories that are used in metal production.

The course provides knowledge of:
-how thermodynamic and kinetic theories can be used to optimise metallurgical processes.
-the importance of choice of process parameters to reach an improved process control of a metallurgical process with regard to both productivity and sustainability.
-possibilities to design processes or parts of processes in metallurgical industries.

After passing the course, the student should be able to:
• Explain the basic kinetic theories related to pyrometallurgical metal production
• Identify possibilities to process control and reactor design in industrial metallurgical processes
• Identify how it is possible to choose and optimize parameters to receive a sustainable metallurgical process chain
• Identify how it is possible to choose parameters to control a metallurgical process

Examination:
TENA - Written Exam, 3.0, grade scale: A, B, C, D, E, FX, F
Pro1 - Project, 4.0, grade scale: A, B, C, D, E, FX, F
LAB1 - Digital Laboratory, 1.0, grade scale: P/F
SEM1 - Home Assignment, 1.0 grade scale: P/F

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 few answered varied from 9 - 11 hours per week and 12-14 hours per week for two students. The third student answered 18-20 hours per week. The workload is normal for the first 2 students but too high for the third student. It is not clear why the person spent so much time, but a guess is that the person liked the different topics and laboratories so much so that he/she put in that many hours.

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 of the course were the following:
A:3
B:9
C:0
D:0
E:0
Fx:0
F:0
All attending students passed the course.
The course result is good. The grade distribution given here is similar to the distribution of the years before.

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

What was the best aspect of the course?
- The chance to work on a real industrial problem
- Working with real-life company problems. Working and collaborating with other students
- Interesting lectures and a very wide course.
- The layout with having the home exam early was good.

What would you suggest to improve?
- Some more meetings to explain better how to approach the problems in the project
- The criteria for the project was a bit unclear.

What advice would you like to give to future participants?
- Do the group work as soon as you can, assign duties to ensure the work is done in time.
- Listen and ask questions, participate in the discussions.

Is there anything else you would like to add?
- Very nice course that was fun to take

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

The few students that answered seemed satisfied, but also pointed out that project part requires some improvement. e.g. the project approach should be better and the criteria should be more specific. When we discussed with the supervisors they also said that some student groups required a step by step supervision, which isn't the intention of the course. The students should get practice in approaching real industrial problems with minor supervision in order to be prepared for the future working live.

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.

It is all supervisors opinion that the students are very satisfied with the course since it teaches the students to work with realistic industrial problems that they can meet as future engineers.

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?

Too few answers to be able to evaluate.

PRIORITIZED COURSE DEVELOPMENT

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

The setup of the projects should be more specific, so the students can get a more clear understanding. Which can be difficult when dealing with real industrial problems, but the intention is to improve this part in the next year course.