

Report - MH2041 - 2022-07-10

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.

Students were offered to fill out an LEQ, but only 5 out of 16 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:

After the course the student will be able to:

- Read and interpret ternary, quaternary, and quinary phase diagrams of alloys and oxide systems
- Apply ternary lever rule, liquidus projections, and iso-activity diagrams
- Apply phase diagrams in selection of refractories for liquid slags
- Perform equilibrium calculations in reduction of metal oxides and sulfides, gas solubility in metallic melts, solute distributions in slag-metal systems, and in modification of non-metallic inclusions

Examination:

- INL1 – Hand-in assignment, 1.0 credits, Grading scale: P, F
- TEN1 - Written examination, 5.0 credits, Grading scale: A, B, C, D, E, FX, F

THE STUDENTS' 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?

The answers of 3 students varied from 6 - 14 hours per week. These mentioned workload can be considered as normal and expected. One student answered 21-23 hours per week, which seems very high. Most likely the student really put a lot of effort, since the student liked the course and the lecture content.

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 on the course were the following:

A:9
B:1
C:2
D:0
E:1
Fx:1
F:2

INL1: all students passed

The result is overall okay and aligned with the past years. In the students and teachers opinion the examination was to time consuming, which was caused by the miscommunication of the two main teachers in the course. Some of the students spent 10 - 12 hour to solve the exam. In compensation, the students were offered that the two worst answered questions were cancelled from the exam results.

All students were given the opportunity before exam to contact the teacher and get advice and additional explanations. The students could use all available materials and tools during the examination.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Q1: What was the best aspect of the course?

- Connecting thermodynamics to reality!
- That all the theory was always related with real life processes and the effect of them.
- The lectures overall were very good
- I think the best aspect was working with "real" problem definition that the industry may face

Q2: What would you suggest to improve?

- Shorten the exam for the next class taking it
- Make several slag-diagrams available in course literature
- Correct errors in Solutions Recommended exercises
- Add practical sessions to Jesse's part.
- Some more exercises for part 1 with Jesse. It felt more like two different courses mashed into one. More correlating between parts 1 and 2 would have been nice.
- The exam was too long, need to shorten it.
- It would be nice to get feedback on the exam and the submission so I could know what I did good and what I might have missed.

Q3: What advice would you like to give to future participants?

- Try to go through the exercises before the lecture to be able to ask questions
- Read the literature material with time
- Attend the lectures and exercises and ask questions! Sadly slot of students don't seem to dare to ask questions, I don't know why...

Q4: Is there anything else you would like to add?

- The examination was brutal. I sat around 18h non-stop, and around the 12h, I was pretty much done with life. Part 1 was hard, did not understand most of the questions. Part 2 was fine, there was a lot but it was manageable.
 - I think that this course is perfect fitting for a home exam and don't see why this would be in a "salstentamen". The problem with the extent of the exam has already been brought up but I think you managed to fix that with removing the 2 "worst" question for each student. It is of course not reasonable for an exam to take 12-24 hours. I would like to have seen the old exam solutions when I studied for the exam, otherwise I have no idea if I think correctly or not. Also, there was some new information in the exam that we did not get beforehand. We were told that we could use internet and every other source of material and write the exam on the computer and that we only needed 50% in total to pass. But on the exam it said that all solutions have to be handwritten, no other help than the book and lecture notes and that you needed 50% for each part.
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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 with the lectures, but also pointed out that additional exercises could be added to the course structure.

The students in general seem to be very unsatisfied with the examination for several reason.

- 1) the time to solve the examination questions was unrealistic high, some students said they needed more as 12h.
 - 2) regarding the information how the examination should be carried out, different information have been given during the lectures, as in the exam instructions
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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 satisfied with the course and the students appreciate to get an deeper knowledge about industrial applied thermodynamics, but in this years course there was a major unsatisfying issue with the examination.

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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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?

- additional exercises should be added
 - Part 1 and Part 2 in the course should be well aligned, so the students feel it is one course and not two different courses in one.
 - the time to solve the examination questions should be realistic and within the expected hours for a 6 credit course, just to mention, this has never been a problem during the past years
 - information given regarding the examination in the lectures should be aligned with the information given during the exam
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