

CHEM-E0115 Planning and Execution of Pulp and Paper Investment Project

Feedback summary

Lassi Laumola (AFRY Oy)
Kyösti Ruuttunen

18.1.2022



Aalto University
School of Chemical
Engineering



Lectures and project work: 50 h + 85 h

Number of students: 12 (in 2020: 7)

Lectures realised in hybrid manner (lecture hall and Teams)

- Lassi Laumola & his AFRY colleagues
- Workshops also in the AFRY office on campus
- Kyösti responsible of managing the course

Project: OCC (old corrugated container) recycling plant

Evaluation

- Project work report & presentation, exam
- Peer and self evaluation

Feedback summary; questions 1-8

n=13(!); scale 1 – 5 (1 = most negative, 5 = most positive)

Question	Average (2019)	Min. – Max.
1. Overall assessment	3.15 (4.00)	2 – 4
2. Teaching methods	3.00 (3.56)	1 – 5
3. I am pleased with my study effort	3.76 (3.75)	3 – 5
4. Workload compared to other courses	3.85 (3.44)	3 – 4
5. Correspondence to the description	4.00 (4.25)	3 – 5
6. Effect on the study motivation	2.75 (3.78)	1 – 5
7. Difficulty compared to other courses	3.85 (3.11)	3 – 5
8. The course enhanced my general skills	3.69 (4.00)	3 – 4

Feedback summary; resemblance to real life

The course gave me a comprehensive picture about planning and execution of an investment project, especially from the engineering and project management perspectives. E=Not applicable, 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Completely agree

Average: 3.62 (n=13; variation: 2 – 5; in 2019: 4.11)

General comments and suggestions

Afry's involvement was a very positive thing. The division of the workload was seen uneven: the project contained a lot of work – why was also an exam included? The way the workshops were arranged received criticism. Hybrid teaching was seen as a positive feature.

- *Lassi's comments:*
 - *It was a great experience to facilitate the course and get to know with the students. The course was the first I had held and most certainly next year will be better as I have more understanding of the aspects of the course.*
 - *In my opinion, the workshops need to be organized in the future so that some aspect of the assignment (schedule, budget, etc.) is carefully shown how to do. Relying on students to ask the questions will not suffice.*
 - *Hybrid teaching was a great opportunity to the students but a tedious one to organize. From its point of view, the lectures were ok, but the workshops had to be done only in a conventional way due to their nature. Sadly only 3-4 of the 12 students were physically present on the lectures as the presence in the classroom would spark more conversation and questions.*
 - *Course exam valuation could be dropped from 50% to for example 30% if seen as a working solution. The main emphasis of the course should be in the assignment anyway.*

Quotations:

- “Hybrid teaching was working well, and it was nice to visit Ota-Afry office”
- “What was very hard for me during the course was the fact that the course assignment was huge, the whole thing was given at the very beginning and only the final deadline was assigned. It would have been very helpful if there were some intermediate deadlines before which some aspects of the assignment should be completed and after which those parts would be reviewed and polished after getting some feedback.”
- “The lectures were too long in my opinion and I could not concentrate for the whole four hours. Maybe lectures two times a week, one lecture 2 hours? The lectures could also be at AFRY's office in Otaniemi. The course had a big assignment, so the exam was kind of too much for the course.”

What is your opinion on the project assignment?

In general, the importance of the project work was acknowledged but its implementation was criticized.

- Many students found the instructions insufficient and unclear (especially getting started was challenging)

Quotations:

- “Instructions were not very clear on every deliverable and we needed to ask many things in workshops. Maybe each deliverable could have had clear instructions so we should not ask so many things.”
- “The idea is very good, and useful. It is great to be able to learn that kind of things at the university, for an overall picture. The project assignment was not clear from the start. There was so many files that it could have been more clearer if there would have been a file saying which ones to edit and fill in. We got help when we needed, which was nice.”
- “Instructions for most of the appendixes were very unclear. The instructions should contain the scope and targeted length of the appendix.”

Lassi's comments:

- *More emphasis must be given to the assignment material familiarization towards students. For next year, I am planning to revise the material to scrap the non-essential assignment documents to provide a more well-rounded and coherent assignment. This way the material can also be more tailor-made to suit the next years assignment topic. I am optimistic that the experience gathered this year will improve the course in the following years as the contents of the assignment is more familiar to me.*
- *Even groups in terms of head count is a must next year as disparity puts the team with least members in a disadvantage.*

Please give feedback on the arrangements of hybrid teaching. How did it affect your learning?

Very positive feedback on the hybrid teaching. There were clearly some technical challenges, but the freedom of choice was very much appreciated.

Quotations:

- “It helped my learning, because otherwise I would have missed parts of the lectures. Maybe someone in the lecture room could be following the slides so that they would notice if the lecturer is showing online different slides than in the class (this happened at least ones and I was watching the lecture afterwards, so couldn’t mention about it).”
- “It was great to have the opportunity to participate in the lectures either remotely or in class. This way everyone could choose the option that works best for them...
Some points that need to be taking into account...
...all questions from the audience need to be repeated by the lecturer or the person asking the question has to be handed a microphone to speak to, otherwise people listening through Teams/Zoom will not hear it.”
- ”Hybridiopetus vaikutti toimivan ihan hyvin. Itselläni se ei vaikuttanut oppimiseen mitenkään.”

Conclusions

Overall, the course does not need major changes. Project work instructions and organization will be carefully revised.

- This year, the number of team members was unfortunately uneven: 7 vs. 5 members – this should not have happened
- We will evaluate the pros and cons of including the exam

The peer and self assessment was probably working well (or was it?)

