Faculty of Engineering

Minutes

May 2020

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Subject	Advisory board meeting for BEng, BSc, and MSc in Chemical Engineering
Date and time	May 25th, 2020 at 1pm-3pm
Location	Zoom
Invited	Elisabeth Villumsen (Novozymes) Lars Brodersen Holm (NGF Nature Energy) Martin Skov Skjøth-Rasmussen (Haldor Topsøe A/S) Hanne Tolderlund Rasmussen (BioMar A/S) Sabine Meng Jensen (Eurofins A/S) Erik Lorin Rasmussen (Novo Nordisk) Thit Marie Buch Güllich (DOEHLER Denmark A/S) Behnaz Razi Parjikolaei (Arla Foods Ingredients) Thomas Skamris Jensen (Rambøll) Massimiliano Errico (Associate Professor and Education coordinator at KBM, SDU) Birgitte Lilholt Sørensen (Associate Professor and Education coordinator at KBM, SDU) Knud Villy Christensen (Associate Professor and Education coordinator at KBM, SDU) Martin A.B. Hedegaard (Associate Professor, KBM, SDU) Per Æbelø (Executive Officer at Programme Development, Economy and Statistics, SDU), Mette Smølz Skau (Programme Coordinator, SDU)
Cancellation from	Elisabeth Villumsen, Hanne Tolderlund Rasmussen, Per Æbelø, Erik Lorin Rasmussen, Martin Skov Skjøth-Rasmussen
Moderator	Massimiliano Errico

Welcome

Welcome and presentation of the panel members
Everybody introduced themselves and was welcomed to the meeting

Discussion points

1. New BA and BEng (Knud)

Knud presented the structure of the new BA and BEng programmes and went over the changes He explained the progression of the programme and that it is moving away from inorganic chemistry and focusing more on biomass. Biorefinery and biofuel has been included as it has proven more and more important. There has also been a move away from legislation and to deeper understanding about why we talk about greenhouse effect, recycling etc. Biochemistry and food chemistry are still the focus of third semester.

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The math progression has been slowed down to 3 5 ECTS courses, one in each of the first 3 semesters, and the chemical reactor design course has become mandatory in the BEng programme.

The advisory board was asked to provide inputs on how necessary an extra course in inorganic chemistry is, as the inorganic chemistry course has been taken out after students complained about its redundancy.

Thomas Skamris Jensen thought it was a good idea to take out the course and leave it as an elective. This gives the students the opportunity to form their own specialization.

Behnaz asked if other courses further on in the programme was depending on a deeper understanding of inorganic chemistry. Knud answered that the students did not have much catalysis. Inorganic chemistry is helpful to provide a foundation for some of the courses on the master programme, but the students keep complaining that they already have learned most of the content in other courses, so the students do not benefit sufficiently. Behnaz pointed out that in the food industry it is not a problem that the course has been taken out and Thit agreed.

2. Review if the new master's programme (Massimiliano)

Massimiliano presented the new masters programme.

Massimiliano explained how the profiles has been taken out and what the motivation was for doing so. The change was based on economy, the SWOT analysis from 2018, the student's opinions, and the necessity to have a programme aligned with the society needs.

There is now a winter uptake and there is a revised pool of electives that students can use to shape their education.

Thit asked about the in-company project and if it was connected to the master's thesis, which it isn't. Thit appreciated this opportunity for the students to do a project with a company, and Thomas said that he did it when he was a student and that it was a very good experience. Thit asked how the companies could match projects with students and Massimiliano and Birgitte briefly explained this and that there has to be a master level supervisor in the company, which is sometimes a challenge in small companies.

Lars asked about the SWOT analysis from 2018 and what the core findings were. Massimiliano explained that the programme had been critized for having too many profiles with too few students in each. It appeared too fragmented and has now been unified.

Thit and Behnaz asked if the students risked not being able to take the preferred, but it was pointed out that the students usually chose electives from the programme. This means there are a sufficient number of students to run the different electives.

How is the Chemical engineering programme working with the SDGs? SDU is running a 1 ECTS course in basis understanding of the UN sustainable

development goals and the individual programmes must built on to this fundamental knowledge afterwards.

Massimiliano asked everybody if their companies look for SDG knowledge and competencies when they hire new people.

Behnaz said that these issues have always been taken into account, especially at the production and the supply chain, at Arla but she has noticed that the attention to sustainability has increased. She found it important that the candidates understand these concepts.

Thit said that DOEHLER has a new department that optimizes all processes, which can both be optimizing financial goals and sustainability related goals, such as reusing material and decrease water use etc. Thus, it is very important for DOEHLER that the students understand sustainability, even though the company doesn't use the specific EU goals.

Lars said NGF Nature Energy use the goals as lightening goal and communicate in these terms. He said that it was not important for them that the university had declared themselves to these goals. It is the competencies the students learn that are key.

Thomas said that goal nr. 6 is key for Rambøll, and if the students are being taught in this goal and the relevant competencies, they will be more interesting for the them.

Behnaz asked if the students will be taught in the SDGs theoretically or in projects. Massimiliano explained that the students will be given tools, and Knud explained that the teachers are trying to increase awareness on the SDGs. However, it is an ongoing discussion exactly how to teach these goals. Birgitte explained that the university has specified that SDU will not be doing greenwashing in implementing the SDG strategy.

Read more about the programmes here:
BEng in Chemical Engineering; BSc in Chemical Engineering; MSc in Chemical Engineering