#### Oppfylte KJBIOREF forventningene du hadde til kurset? Did this course meet your expectations?



#### Hvilke av de følgende kursene fra UiB har du fulgt tidligere? Please mark which of the following courses you have attended earlier?



## Har du god nok bakgrunn til å ha fullt utbytte av undervisingen i KJBIOREF?

Did you feel your background knowledge was adequate to follow the content of this course?



Hvor stor andel av forelesningene har du fulgt? How regulary have you attendend the lectures?



#### Har du forberedt deg til forelesningene? Did you prepare yourself for the lectures by reading the curriculum ?



Klarhet i fremstillingen på forelsningene. 1 til 5, der 1 er meget uklar og 5 er meget klar.

How clear was the presentation of the different topics and the overall context during the lectures? Rate on a scale from 1 to 5 (1=very unclear, 5=very clear)



Hvordan har læringsutbyttet av forelesningene vært? 1 til 5, der 1 er svært lavt læringsutbytte og 5 er svært høyt læringsutbytte.

How good was your learning outcome from the lectures? 1 to 5, where 1 is very poor learning outcome and 5 is very high learning outcome.



Har forelesers spørsmål til studentene under forelesning og studentpresentasjoner bidratt positivt til læringsprosessen? Both the lectures and the student presentations were to a considerable degree meant to be interactive with intermittent questions being posed by the lecturer. Do you think this approach helped you in your learning progress?



### Please spescify whether it was just about right or too much or to little interaction between students and lecturer.



The external presentation by a guest lecturer (Femke Brouwer, Avans University) was part of the curriculum. How was the talk fitting in the overall context of the course and was is appropriate? Range on a scale from 1 to 5 (1=very poor, 5=very good)



The external researcher also provided a exercise as part of the course. How good was your learning outcome from this exercise? 1 to 5, where 1 is very poor learning outcome and 5 is very high learning outcome.



Due to the lecture structure into two block-courses you have had to prepare the mandatory student presentations on your self-selected topic. How was your individiual learning outcome from the preparations of the talk? Rate on a scale from 1 to 5 (1=very low learning outcome, 5=very high learning outcome)



How was the learning outcome from presenting the respective talk in front of the fellow students? 1 to 5, where 1 is very poor learning outcome and 5 is very high learning outcome.



Hva syns du om lærebøkene? 1 til 5 der 1 er svært bra og 5 er svært dårlig. /

What is your opinion of the textbooks? Range on a scale from 1 to 5 (1=Very bad, 5=very good)



### What do you think about the presentations of the lectures provided by the lecturer via e-mail?



Opplever du at det du har lært på KJBIOREF vil være relevant for framtidige studier / forskningsaktiviteter?

Do you think the knowledge you learned in this course will be relevant to your further studies / thesis / research activities?



10 studiepoeng skal i snitt tilsvare ca 13. t arbeid (organisert undervisning + egenaktivitet) per. uke. Hvor mange studiepoeng mener du emnet KJBIOREF tilsvarer?

10 stp corresponds to a workload of approximately 13 h/week (lecturers and self study). How do you consider the amount of work involved in KJBIOREF?



Hvordan har kontakten med foreleser vært? 1 til 5, der 1 er svært dårlig kontakt og 5 er svært god kontakt.

How has the contact with the teaching staff been? Range on a scale from 1 to 5 (1=very poor contact, 5=very good contact)



### Emnerapport 2018 vår

Emnekode: KJBIOREF

Faglærers vurdering av gjennomføring/lecturers assessment of implementation:

The course was successfull with respect to

- the conceptual structure into two block courses,

- the demand in teaching preparations for the course

- the student participation (number and active interaction in seminar-style teaching concept)

- the student's success regarding course targets and knowledge gained.

Praktisk gjennomføring/practical implementation

The integration of an external visiting professional on the level of the department lectures, giving a lecture in the field applied Life Cycle Assessment of Biorefining again proofed to be a vaulabel tool to increase both, the learning outcome of the

individual student but also the students personal integration within the departments know-how transfer and distribution throughout the manifold areas. Strykprosent og frafall/*failure rate and apostasy* 

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#### Karakterfordeling/grade distribution

No special assessment applicable since grade distribution is well balanced without any failures. In contrast, the students knowledge was mostly excellent or very good which both examiners agreed on. This is reflected by the good grades.

#### Studieinformasjon og dokumentasjon/information of studies and documentation

Students were required to prepare and present an individual talks about suggested but a selfselected topic. The "homework" concept between the two course blocks proofed to be adequate and well accepted with a maximum of learning outcome for the students. Support of the students presentation was provided remotely via email and also accepted/taken by the students.

Tilgang til relevant litteratur/access to relevant litterature

All required literature and research articles of the reading list was accessible and/or distributed by lecturer and fellow students which the lecturer has checked in due time before the exam.

# Faglærers vurdering av rammevilkårene/lecturers assessment of frame terms

Lokaler og undervisningsutstyr/locals and teaching equipment

Everything was as required and expected. Good support by the department is acknowledged.

#### Andre forhold/other conditions

Everything was as expected and proofed in the last courses.

The course timing was adapted to the students individual requirements (one potential overlap) and matched according the necessary flexibility.

## Faglærers kommentar til student-evalueringen(e)/lecturers comments to student evaluation

#### Metode - gjennomføring/method - implementation

The very positive evaluation feedback does support the opinion of the lecturer that the teaching concept, the topic and the way of course implementation –into two block courses– are well accepted and also suitable for the students.

#### Oppsummering av innspill/summary of input

The very positive input of the students throughout the course do also support the impression of the lecturer that the seminar-style teaching concept is very good regarding learning outcome and understanding of the topics covered. The industrial aspect, practical informations and excurses which the (industrially employed) course leader always also puts a special emphasis on seems to be of very high value for the students. This very often covers relevant inside information including large scale plant operation, safety and environmental protection measures but also business thinking which the typical university course can only cover superficially. Ev. underveistiltak/eventual underway measures

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Faglærers samlede vurdering,

inkl. forslag til forbedringstiltak/lecturers overall assessment, incuding suggestions for improvement measures

It is the impression of the course leader that topics such as

- Biorefinery concepts

- industrial applications within the Norwegian wood and biomass industry with its long-lasting history of sustainabe forest management, paper industry and fossile energy production,

- Life Cycle Assessment of existing and future industries

is of very high relevance for students of both, natural science and engineering. Further emphasis should be put on it strategically and in particual with respect to the scientific education concepts.

The popularity could be increased by more and/or early information at the various options available.

Mike Kleinert, 28.08.2018