



Report - BB2425 - 2020-11-09

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.

We used an online LEQ course evaluation survey, consisting of 12 standard evaluating questions. Students were able to tell us their gender, and disability status, if they wanted to. We had 7 students out of 11 answered course evaluation survey, giving a response rate of 63.64%.

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.)

During the course, we had 2 online training sessions, where students were free to discuss course topics and the exercise questions for each lecture. We also had a final seminar/meeting before the exam. All teachers were invited to the final seminar and we discussed the course content, intended learning outcomes and exam. Students were free to ask questions regarding the course design, contents, lectures and labs, etc. All teachers and students were engaged in the discussions during the meeting.

COURSE DESIGN

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

The Glycobiotechnology course is a new course developed based on the previous course Glycobiology and Carbohydrate Technology. The course is consist of 10 theoretical lectures covering the topics of history of enzymes, carbohydrate structure, carbohydrate active enzymes (CAZymes), dietary glycans, enzymes in food and biofuel production, enzymes in fiber processing, CAZymes structure/function relationship with associated computer lab , glycoconjugates including N- and O-glycosylations, industrial production of glycoproteins, and glycoconjugates in medical applications, and 3 practical labs including Computer lab – CAZymes 3D structure/function relationship (LAB1), Wet lab1 – Comparison between glucose oxidase enzymatic assay and 3,5-dinitrosalicylic acid (DNS) assay for reducing sugars (LAB2), and Wet lab2 – Demonstrate how glycoside hydrolase enzymes with different modes of action act synergistically to deconstruct a polysaccharide (LAB2). The examination includes the laboratory reports and a written exam. The teaching team is established from the Division of Glycoscience and the Department of Industrial Biotechnology.



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 student's workload from 6 out of 7 students was more than 9-12 hours per week, which was comparable to the expected level for the course of 7.5 credits. In general, both students and we teachers believe that the course workload was reasonable.

Some relevant comments from the students:

- It was very easy to direct your focus and spend time on the right things since questions to work on were provided, and I could listen to the lectures over and over again to get everything. In other courses, a lot of time is usually spent on trying to figure out what to learn, which was not the case here.
- I think the teachers were all great at explaining their subjects, as well as being very responsive via email for questions.
- Very different depending on lab reports, and how many lectures.

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 students were successful on the course despite the difficult pandemic situation. Out of 11 students, we had 3 students who achieved grade A and 4 students grade B. One student had to take the re-exam.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

For the best aspect of the course:

The students liked the subject area glycobiochemistry which is very important in the field of biotechnology and should be included in the master program. They thought that the course covered glycobiochemistry in a very broad way (several different areas) with a good level of depth. They thought the course organization was very good. They appreciated the lectures being available as videos and the exercises, which helped them to learn a lot more than they did from other courses.

For improvement:

The students suggested that all lectures should be recorded. They also suggested more synergy between the lectures from different teachers.

For advice to future participants:

- Go to the lectures and answering the exercise question.
- Work on the exercises as early as possible, and ask the teacher's questions (they can be dumb questions, everyone is nice). This will take you very far.
- Make sure you understand the key concept(s) of each lecture as early as possible. If you do this, the exam period will be a nice time where you just can repeat the concepts etc.
- Brush-up on biochemistry and organic chemistry. All Articles are extremely useful, read them!!
- Understand lecture 2 and 3 thoroughly as the rest of the course depends heavily on those two lectures.

SUMMARY OF STUDENTS' OPINIONS

Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

Here are the opinions from the students:

- Great and interesting course!
- I think that the course was of great quality, especially considering that it was taught through ZOOM. I felt that recording the lectures was extremely helpful, as we miss some details or information during classes that can be revisited afterwards. Honestly, studying during this pandemic situation is not easy, and I know that giving lectures and preparing them are really hard as well. All in all, I think that the professors were really thoughtful and the course went pretty well!

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 the first time that we are offering the Glycobiochemistry course. Students appreciated the structure and organisation of the course. We teachers found that students were very active in learning the concepts as reflected from the online open discussions and the final seminar, as well as from the course evaluation. Students were active in the labs and exercises, asking a lot of questions in class and via emails. We encourage our future students do the same.



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?

The average response to Learning Experience Questionary (LEQ) statements from the students was between 5.6 to 7, which was really positive.

-In the aspect of the variation and participation, the male students seemed to be more neutral as compared to female students with the statements regarding 4. The course was challenging in a stimulating way. 16. The assessment on the course was fair and honest. 21. I was able to learn by collaborating and discussing with others. On the other hand, the female students were more neutral with the statement of 17. My background knowledge was sufficient to follow the course.

-No difference was identified or disclosed regarding international/national students or students with/without disabilities.

PRIORITIZED COURSE DEVELOPMENT

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

We identified a few aspects we should develop and implement in the next round of the course in P4 of VT21.

1. Record all lectures.
 2. Improve the synergy between teachers to avoid repetition and share common information.
 3. Provide more exercise questions covering the basic concepts.
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