



Report - BB2560 - 2019-04-24

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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COURSE DESIGN

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

VT-2019 was the first time the course BB2560 has been offered. Teachers involved were Lauren McKee, Anders Andersson, Gunaratna Kuttuva Rajarao, and Anja Persson. Teaching assistants for the lab project were Thomas Baumgarten, Maja Marklund, Yilin Liu, and Johannes Asplund Samuelsson.

We have five themes in this course, introducing the technical concepts of metagenome sequencing and the community-level functions of microorganisms in the human and soil/water microbiota. For each theme we have lectures and exercises (peer teaching). We also have a substantial lab project which supports learning in several of the themes.

Based on teachers' discussions, and supported by the student evaluations, we will change one ILO and alter the course description for one module, to better reach our goals of teaching "advanced microbiology" and "metagenomics" as our two key concepts. We are also writing a new grading criteria scheme, for a more fair and consistently objective assessment next year.

THE STUDENT'S 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?

According to the course evaluations, 33% of students worked 9-11 hr/week, 22% worked 12-14 hr/week, and 22% worked 15-17 hr/week. This is a reasonable workload for a course of this kind. Students did comment that most work came towards the end of the course - next year we will spread out the assignments over the whole period.

Some relevant comments from the student evaluations:

-The workload was fine, not too little not too much. (6-8hr/week)

-The workload was fine, only towards the end it was quite a lot with the exam, lab report and AB report. (9-11hr/week)

-The workload in this course was quite normal, but we often had very little time from getting the different exercises, such as the presentations, and the deadline. This occasionally made it hard to plan out your weeks work beforehand. (15-17hr/week)

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?

There was a strong level of overall achievement on this course, with some very high grades achieved on the exam. There was a normal distribution of grades for the course, as would be expected. 36 of 38 students pass the final exam first time. Student pairs were permitted to submit lab reports more than once - most passed on the second submission, a few on the third, and one or two student pairs required three submissions to pass.



OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?

We used the LEQ evaluation survey template, using 12 of the recommended questions. I also added some additional specific questions. We received an evaluation completion rate of 49 % (19/39 students responded).

I was very pleased with the polar diagrams for this course. They showed overall high scores (over 5.0) for all factors, when averaging all student scores.

By gender, scores were on average slightly higher from female students than from male - I think it is common for male students to be more critical in course evaluations, but even so the scores from male students were mostly strong (all over 4.4). We received positive comments about the gender balance in teachers and teaching assistants.

By type of student, international students were slightly more favourable of the course than Swedish students, but, again, scores from the Swedish students were still high (all over 4.4). We received positive comments about the mixing of Swedish and international students on the course, and about the friendly atmosphere in the labs.

ANALYSIS OF THE LEARNING ENVIRONMENT

Can you identify some stronger or weaker areas of the learning environment in the polar diagram - or in the response to each statement - respectively? Do they have an explanation?

Strongest area: tying theory and practical skills together in the lectures, exercises, and labs by maintaining focus on one theme.
Another strong area: the collegial and friendly atmosphere described in class and in labs.

Weakest area: we were inconsistent in how each module was assessed, and the themes of the modules did not always feel well integrated.
Another weak point: some assignments were announced with quite short notice, and one assignment was not graded in time, delaying students from passing the course.

ANSWERS TO OPEN QUESTIONS

What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?

The best pieces of advice offered to future students are "go to lectures", "do all the reading", "plan your work early", "work on the practice exam questions", "start with the lab report in advance, since it is a lot of work", and "focus on the pair and team exercises as they are very helpful for learning".

Students had some specific comments about the organisational flow of the course, and about the final assignments. We are using this feedback to amend the ILOs and our assessment techniques for next year.

PRIORITY COURSE DEVELOPMENT

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

Communication with teachers needs to be improved for next year, and we need to be better at sticking to our schedule. All assignments need to be announced well ahead of time (at the beginning of the course).

For next year, we are going to adopt a new module structure, as follows:

- a. Introduction to advanced microbiology, and metagenomic methodology
- b. Metagenomics for enzyme discovery in biotechnology
- c. The human microbiome - roles in health and disease. Including current and emerging methods for diagnostics in the clinical setting
- d. The environmental microbiome - function and metagenomic monitoring approaches

This will improve the connectivity between modules, and ensure that we can integrate the concepts of "advanced microbiology" and "metagenomics" into the whole course.

One ILO will also be changed. "Understand and use the R programming language to analyse a metagenomic dataset" replaces "Discuss the societal and scientific challenges with antimicrobial resistance".