



FACULTY OF SCIENCE

COURSE ANALYSIS

Date 2021-03-30

Department of Biology
Education- Bachelor's and Master's
level

Main Teacher: David O'Carroll
Number of students: 19
Number of answers: 17
Grades: 11 Pass (G) 8 Pass with
Distinction, after 1 retake. (After first
exam, one student did not write at
all, and 3 failed the exam). Compiled
by David O'Carroll

Course Analysis: BIOS08 Microscopy- Bioimaging, spring 2020

Summary of the course evaluation

Number of answers: 17. Overall, students were pleased with the course (grade 3.9), with a high score (4.1) for the way the course was re-planned and given on-line at short notice due to covid-19. Students praised the efforts and enthusiasm of course teachers, the amount and quality of feedback given on assignments, and the quality of practical instrument demonstrations, although they were disappointed that hands-on practical work was not possible. Suggestions for improvement included reducing the length or content of some lectures and better alignment of exam questions with course content. Notably some students remarked that the course did not need change.

Comments from the teachers team

Considering the zoom format required for lectures, this was a very engaged and interactive group of students, very happy to ask questions and discuss points during lectures and demos, which made the teaching fun. The course is usually highly appreciated by students for the hands-on practical experience and opportunities to see and use advanced instrumentation. We were pleased that despite having to manage this entirely online, our implementation of multimedia formats for the demos, including better integration of theory during instrument-based practicals, was highly appreciated by students. Like many

students, we were of course disappointed that we were not able to run lab-placed research projects. But overall we feel that the general structure and level of the course works well.

Evaluation and changes made since the previous course

Students had previously criticized the poor and late information about some course elements. Despite some uncertainty about how to best deal with replacing hands-on work with online content, we were able to improve this aspect, leading to a high score (4.3) on the communication criterion. In previous years, the theoretical exam was held earlier in the course, and some students felt that this gave insufficient time to prepare, so this time we moved it to the final week. 10 out of 11 respondents now felt that the workload was evenly distributed.

Unfortunately, the covid-19 situation meant that we were forced to use literature based research projects on special techniques, rather than placing students into research labs for short projects.

Suggested changes for the next course

For next time, given ongoing covid-19 restrictions we will build on our previous success in running practical demonstrations online but using an immersive multi-camera viewpoint approach and interactive style. We will shift some material from theory lectures into this practical setting, with additional breakout sessions from demos to delve into theory. This will also allow us to reduce the length of some lectures, as requested by some students. We will simplify and shorten the image processing exercise. Rather than purely literature-based project work, we will reintroduce lab-based placements, where students will work with a supervisor on ongoing research projects, but using a 'hybrid' approach, working initially online to establish background and theory of the project, and then a very limited period of time spent in actual lab work and image acquisition.

Other teachers involved in the course

Ola Gustafsson, Klas Flärdh, Stanley Heinze