Course analysis (course evaluation)

Course code 1BI039	**Course title** Chemical Biology	**Credits** 8hp
Semester (spring/autumn) VT23	**Period** April 27 – June 4, 2023	

Course coordinator **Bernhard Lohkamp**	**Examiner** **Bernhard Lohkamp**
Teacher in charge of component	**Other participating teachers** various

Number of registered students during the three week check 50	**Number approved on the last course date** **36**	**Response frequency course valuation survey** **45.1%**
Other methods for student influence (in addition to concluding course valuation) **Course committee meetings, one after to discuss the survey and course analysis.**		
Feedback reporting of the course valuation results to the students **Survey (without comments) published on course Canvas page and will be published on the kursweb page (Drupal). Whole survey sent to students who have participated in the survey. Discussed survey with the course committee.**		

Note that…

The analysis should (together with a summarising quantitative summary of the students' course valuation) be communicated to the education committee at the department responsible for the course and for programme courses also the programme coordinating committee.

The analysis was communicated to the education committee on the following date: **13/07/23**
The analysis was communicated to the programme coordinating committee on the following date: 13/07/23

1. Description of any conducted changes since the previous course occasion based on the views of former students

The wet lab has been changed and correspondingly the lab manual and lab quizzes has been revised, extended and updated. The computer lab manual has been further revised to clarify several points incl. the separation of information text from questions. Several general points have been further emphasised e.g. the overall view of the course, that chemistry will be important, preparation for the workshop is important, what is considered feedback. Fewer compulsory project work meetings were implemented. Bonus points were removed, instead grading of the lab part with U/G/VG was implemented. Now, both the lab part and the integration (final exam) have to be graded with VG to obtain VG for the whole course.

2. Brief summary of the students' valuations of the course

(Based on the students' quantitative responses to the course valuation and key views from free text responses. Quantitative summary and any graphs are attached.)

The students are overall satisfied with the course from learning new, interesting information to the corresponding examination. However, some feel thought that the exam was too comprehensive and long, the computer lab too difficult and overall too much content presented. The underlying thread in the course which holds the different parts together seems to be missing (again). The computer lab was perceived as

interesting and fun by some and demanding and difficult by others. The group, project work was overall well received. The lab manuals appear still to require some more clarification. The new wet lab was overall well received but for some the data analysis was challenging. Students would appreciate more reading instructions/source since there is no text book available as such as well as overall clearer defined aims.

3. The course coordinator's reflections on the implementation and results of the course

Strengths of the course:

Teaching staff, topic, and content as such is very much appreciated by the students. The computer lab incl. introduction of Chimera appears well liked and teaches the students a lot. The project work focused at the end of the course allows students to apply the gained knowledge in their own work. Seminars are a good way of learning for the students. Integration of several topics learned in previous courses.

Weaknesses of the course:

The lack of a (one!) suitable text book partially due to "different" topics make it difficult for students to know and find relevant information. Overall, it appears that the course is very lecture and theory based with little student active teaching and applications. Some instructions need clarification and/or be extended e.g. for the lab compendia. Computer lab was challenging for some students who fell behind due to this. The exam was experienced by some as too extensive (however results were comparable to previous years). Lab report assessment was often lacking feedback and did not always appear consistent.

3. Other views

Students continue to have difficulty in the analysis of experimental data using e.g. use of excel, applying models and doing simpler lab related calculations. This will be addressed in the programme to be included in several courses.

In the survey several questions were repeated by accident. This resulted in an exceptionally long survey which may explain the low participation and hence questions the overall validity of the survey. And, comparing the two answers for the same questions there are small fluctuations in scores. By accident the exam was printed in black and white so intended coloured figures were more difficult to interpret and hence more time was required to answer these questions (but the questions and exam were still valid and possible to answer). Several text comments/statements by students in the survey are wrong and it seems some students make it more difficult for themselves than necessary by not (carefully enough) reading instructions, exam questions, Announcements on Canvas etc..

4. Course coordinator's conclusions and any suggestions for changes

(If changes are suggested, state who is responsible for implementing them and provide a schedule.)

The lab compendia will be revised further in different ways. The wet lab manual and experiment requires some updates based on the experiences this year (BLo, HAx). The computer lab manual will be considered to be restructured to increase the flow. Possibly with some Chimera introduction in connection with a quiz using a "simpler" model protein (BLo, MEk). Possible text books will be evaluated again to see if the course content can be more defined and clearer aims will be formulated (BLo, P. Arvidsson, M. Haraldsson). However, there is usually the problem that text books either focus on Chemical Biology or Drug Discovery but not both, a new edition of a published text book may actually change this and should be published in July 2023. Replacing or complementing some lectures with a seminar or lecture AND seminar will be considered esp. for longer lectures (in structural biology). Based on recent scientific developments Cryo-EM should be given a stronger weight as compared to e.g. NMR. Alternatively, some topics could be approached by TBL (BLo). The new assessment scheme with graded lab reports will be evaluated thoroughly. A detailed lab report check list/rubric will be considered to aim for more even grading (BLo, lab teachers).

Appendices:

Survey