

Course analysis (course evaluation)

Course code 1B1036	Course title General and Organic Chemistry	Credits 12hp
Semester (spring/autumn) HT-23	Period September 21 - November 13, 2023	
Course coordinator Bernhard Lohkamp		Examiner Bernhard Lohkamp
Teacher in charge of component Michael Landreh		Other participating teachers various
Number of registered students during the three week check 62	Number approved on the last course date 34	Response frequency course valuation survey 67%
Other methods for student influence (in addition to concluding course valuation) Course committee meetings (3 time, 2 during the course, 1 after)		
Feedback reporting of the course valuation results to the students Survey (without comments) published on the open course page. 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: **18/12/23**

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

More basic lab experiments were introduced and the lab manual was revised. A form was used for the first report to clarify what is required.

The course content was reviewed and content less relevant to biomedical students was removed. The basic chemistry part was condensed. The biomolecules part was condensed too and emphasis on application of chemistry rather than new knowledge. Content was re-mapped to avoid overlap and free time for more advanced topics.

Lecture and exercises on chemical calculations was added.

The intermediate test was given more time.

Self-study sessions and seminars were better aligned with the corresponding lectures and content.

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.)

Students were engaged in critical thinking, enjoyed the laboratory work, took responsibility of their own learning and mostly achieved the intended learning outcomes. The final exam appeared relevant to the learning outcomes. Overall, the student-teacher communication was good. The workload was deemed high

but not excessive. Smaller learning groups such as seminars and esp. self-study with teacher help are very appreciated by the students.

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

Strengths of the course:

Small study groups such as seminar and self-study with teacher help support the students' learning continuously and get the required help if necessary. However, there are questions on the format of these and how to support student's learning best in these smaller group sessions. The laboratory work is very much appreciated, and students enjoy not just the work and learning new techniques but the connection between theory and practice incl. the lab reports. The pre-lab quizzes, discussions and video recordings of the experiments prepared the students better for the labs they performed. Teachers were appreciated for their good interaction with students and support. The course is well structured and organised incl. the Canvas pages and theory content.

Weaknesses of the course:

There was still some overlap between content of lectures esp. in the beginning and resulted in missing of some more advanced content. Removal of some less relevant content was not achieved in full (appeared in some lectures and seminars) which caused confusion. Depending on the teacher some parts of the lab assessment esp. reports are not graded uniformly and lack feedback. Time was not always well used, some parts move too fast others too slow.

3. Other views

Exam result was trimodal with 50% VG, 25% G and 25% U. All fairly separated. Survey participation comparatively low and most answers came in late.

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.)

A form may be used for more of the earlier reports in the future to clarify what is required in each of the reports since they are very different due to a progressive element. Lab report assessment in connection with use of AI-tools will be clarified and directed (BLo). Additionally, the lab report check list together with some size expectations will be added directly to the report instructions (BLo together with PN to give general report guidelines). And some experiments itself may be revised, first to prevent the use of potentially dangerous chemicals and waste, second to train more basic lab skills, and third to have clear breaks and/or shorten the sessions. (BLo+responsible teacher). The content of the course will be completed to remove and replace parts which are not (as) relevant to biomedical students. Additionally, the content will be revisited to avoid overlap and free time for more advanced topics. (BLo) The condensation of the general chemistry part was maybe too extreme and be partially reverted. Although in connection with the introduction of course and programme preparatory material in chemistry and mathematics this may not be necessary. (BLo, P. Chivers, M. Dagnell, L. Coppo; it was planned for HT23 but not entirely ready then). A workshop (series) on academic writing should be included (again) (BLo with academic writing at KI and course directors of year one). Self-study sessions and seminars will be better aligned with the corresponding lectures and content (BLo and resp. lecturers). The feedback for the lab reports will be reconsidered in different ways. E.g. the time students have to hand in the next report after receiving feedback for the previous may be increased. And/or students may receive first general feedback and then have a possibility for revision. (BLo) The format of small group learning sessions such as seminar and self-study with teacher help will be reviewed. Maybe one (mixed?) format will be enough (BLo, PCh). Examination of lab skills will be considered in several places in practical as well as theoretical (Quiz) form (BLo, PCh).

Appendices:

Survey