Course analysis (course evaluation)

Course code	**Course title**	**Credits**
4BI109	Bioinformatics	7.5
Semester (VT/HT-yr)	**Dates**	
HT 2025	20251114-20251215	

Course Director	**Examiner**
Arne Lindqvist	Arne Lindqvist
Teachers in charge of different parts of the course Basic tools: Arne Lindqvist TBL CRISPR: Arne Lindqvist TBL DNAseq: Arne Lindqvist TBL RNAseq: Rickard Sandberg Ethics: Lena Ström	**Other participating teachers** Basic tools: Nico Dantuma, Niels Krämer, Michael Ratz, Zhiyu Hao, Anais Julien TBL CRISPR: Martin Hällberg, Michael Ratz, Olof Nordenstorm, Louise Gsell, Valentina Furlanetto, Ole Unseld TBL DNA seq: Nil Campama Sanz, Qirong Lin, Abishek Arora TBL RNA seq: Daniel Ramsköld, Juliane Mayr, Salome Hahne, Sam Kindl Extra view:, Benjamin Murrell, Avlant Nilsson, Michael Ratz

Number of registered students at the 3-week check	**Number passed at final course day**	**Response frequency course valuation survey**
46	42	11/46

Other methods for student influence (in addition to the final course valuation/survey)

-Evaluation discussions as part of feedback at end of each TBL.

-Course director encouraged feedback on course on several occasions, and had discussion with several students

-Course council

-Canvas discussion forum open throughout course for feedback on course improvement. Was not used.

Feedback reporting of the course evaluation results to the students
Through CANVAS

Note that…

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

The analysis was communicated to the education committee on the following date: 20260219
The analysis was communicated to the programme coordinating committee on the following date:

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

-Streamlining the content, modification of individual lectures

-Neural networks integrated into CRISPR TBL

-Quiz on NGS basics

-Short free text answers in a subset of questions in written exam

2. Brief summary of the students' evaluation 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.)

Only 11 out of 46 students answered to the course evaluation, raising concerns on how representative it is. The student's answers in the course evaluation were in general positive. One respondent seem to have been very negative concerning all aspects of the course. There is no indication on why in free text responses.

The overall course rating was 5.2 out of 6 on average, with a median value of 6 out of 6. Among others, the TBLs and interactive structure were mentioned as positive. Suggestions for improvement included modification to RNAseq TBL as well as more detailed suggestions for individual lectures.

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

Strengths of the course:

-An introduction to bioinformatics involving both theoretical and practical approaches.
-The mix of learning activities.
-Basic tools module to provide a foundation
-TBL structures. Stimulating peer-learning and discussions between students of different levels.
-The mystery DNA quest, a practical assessment of the basic tools section that stimulated learning
-Feedback to students, both as separate aspects of each TBL and during practicals.
-Feedback from students, in particular in the structured form at end of TBLs allowed adaptation of the course while ongoing.
-The teams structure of teachers provided support and enabled discussions, feedback and coordination in planning and executing teaching. It was also very useful as a backup if one teacher could not make it.

Weaknesses of the course:

-The course is heavy, and although a majority did not, some students found the content overwhelming and/or too advanced.
-Schedule is compact with little room for catching up if falling behind.
-Some materials provided could be clearer.
-Some individual lectures could be improved.

-Uneven distribution among TBL groups for how well peer learning worked.

3. Other views

The adaptations that were implemented after last year were generally successful. The new focus on neural networks had some first-time implementations that can improve. The workload and schedule was more balanced.

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

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

This was the fifth occasion of the course. My opinion is that the course went very well and that most aspects worked as intended.

Changes include:

- Expand the time for preparation for ethics. Integrate material in TBLs.

- Shorten time for Mystery DNA quiz to not take focus away from other parts.

- Adapt some lectures and their materials with an aim to streamline content.

Course director is responsible. Implemented 2025.

Appendices:

Course evaluation