Course analysis (course evaluation)

Course code	Course title	ECTS credits
4BI084	Bioinformatics	5.5
Semester	**Period**	
Vt2020	2020-02-27 – 2020-03-23	

Course director	Examiner
Jan-Olov Höög	Jan-Olov Höög
Teacher in charge of module	**Other teachers involved**
No modules	Ian Hoffecker, Bernhard Lohkamp, Jordi Carreras Puigvert, Bengt Persson, Ana Mota, Camiel Mannens, Alejandro Mossi Albiach, Kimberly,

Number of students registered	Number of approved on last course date	Response frequency at course survey
36	33	61
Other methods for student influence (in addition to concluding course valuation)		
Course council (four students attended, Zoom course council), minutes written by student		
Feedback reporting of course valuation results to students		
Course survey report and minutes from course council published at the course web (Canvas)		

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: 2020-06-15
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1. Description of any conducted changes since the previous course occasion based on the views of former students

An introduction to programming in Python was introduced this year. For this, the number of teachers was increased from two to four at the first exercises/assessments. Two lectures were updated/changed completely.

The last part of the course including the exam had to be in digital format. The switch to digital presentations/lectures went well, but the exam opened for a set of challenges. Digital examination has been used for several years. However, earlier years the exam was performed in computer lecture halls, i.e. all students had the same type of computers with the set-up of required programmes. In addition, it was possible to block all programmes not allowed for the examination.

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.)

From the course survey many students appreciated the introduction of Python programming and several students thought that they had a lack of basic knowledge. This was a challenge for the teachers at the computer exercises. Here the heterogeneity of the student's background. Some of the criticism received refer to the exam that had to be adapted to a digital home exam format (including that some students didn't have enough good computers/connections). Further criticism was according the exercises where several students asked for computer demonstrations during the Python part (KIB was not able to update the teacher's computers in the computer's hall with the requested programme). The introducing of digital teaching at the end of this course went smoothly.

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

Strengths of the course: The general format of lectures and computer exercises. The computer exercises/assignments where the students were able to practice the moment taught during the lectures (learning by doing) is a must in course like this. Further the wide topic of Bioinformatics as such.

Weaknesses of the course: A short course with limited time to pass feed-back to the students after each computer exercise/assignment. The introduction of Python programming was extremely dependent on the teacher's knowledge in handling the IT-system at KI. The IT-support from KIB (and UoL) is not enough, but at the same time they were very helpful. Earlier we had one teacher that could advice KIB what and how to optimize the computers for our requirement.

We had to switch to a home/digital exam with very short notice. Some students were disappointed by the fact we didn't ask about some additional areas. However, we thought that larger computer power was needed as few students stated in advance, they didn't have fast enough computers/connections.

4. Other views

A mini survey was performed at the course start with a self-estimation of knowledge in Bioinformatics.

5. 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 course will be further updated for 2021. During this course we learnt the balance between theory and practice for teaching Python. A suggestion from students were to divide the students in two groups after their background knowledge. One lecture will be removed and a larger focus on medical applications in the bioinformatic field will be introduced. The discussion with KIB will go on to update the computers used for the exercises. (Responsible: course director Jan-Olov Höög together with Ian Hoffecker)

Appendices: Course survey report and Minutes from course council