Course evaluation template

After the course has ended, the course leader must fill in this template. The program director and education management will use your reflections to make adaptations to the program and/or the next time the course is given. The reflections will also be posted on the program web for students to read.

Course code 4FH087	Course title Biostatistics 2	Credits 7,5 hp
Semester VT23	Period *20230220-20230324*	

Course leader Nicola Orsini	Examiner Nicola Orsini
Other participating teachers Hugo Sjöqvist Viktor H. Ahlqvist Diego Yacaman Mendez Elena Raffetti Charilaos Chourpiliadis Robert Thiesmeier	Other participating teachers

Number of registered students 39	Number who have not completed the course[1] 3	Number passed after regular session[2] 35
Methods for student influence other than course survey[3] mid-course evaluation, feedback from class representatives at the end of the course, final course evaluation		

[1] *At the time of completed grading and mandatory assignments/revisions.*
[2] After first summative examination.
[3] State: how the students were given the opportunity to participate in the preparation and decisions at course level, how the students were given the opportunity to provide feedback on the course and how this forms the basis of the analysis and proposals below, response frequency (for example, concluding survey 70 % response frequency, post-it notes – improvement suggestions after the second course week 90 % response frequency, course council 85 % attendance).

Conclusions from the previous course evaluation

Open feedback by the students suggested possible improvement regarding learning the statistical software Stata. One thing is minimal use of a programming language to learn basic statistical concepts during the practical sessions. Another thing is broader use of a programming language to do anything that is not strictly statistical analysis (data handling, visualizations, use of programming and statistical functions, automating tasks, abstractions/simulations). It seems to be appreciated and valuable the ability to be fluent and confident in both statistical analysis and the programming language. There is also an indication that such programming skills in Stata should be formally evaluated.

Possible ways to improve the course is to offer one afternoon every week dedicated mainly to the use of Stata programming language and have two final exams, one based on Stata and one based on pen and paper about statistics. This should be discussed with the program director and administrator for feasibility.

Description of conducted changes since previous course occasion

The major change from the previous occasion was the introduction of a one-day teaching/learning activity called DICE (Design, Interpret, Compute, Experiment) repeated every Thursday for four occasions. Briefly, the activity consisted in identifying a health problem, design a study with a high sensitivity to find a minimal relevant effect, draw one unique sample, conduct the planned analysis, interpret the results, write an abstract, oral presentation in class. A document containing learning outcomes, activities, motivating examples, code, was updated every week resulting in over 70 pages.

Summary of the students' response to the course valuation

Looking at the final students' evaluations (response 67%), the feedback was overall good. The median response was either 3 or 4 for all questions in a scale ranging from 1 to 5.

A discussion following the final exam with the two class representatives, indicated that DICE was a good learning experience but the quizzes and points around DICE were considered not strictly related to DICE and induced some stress.

The course leader's reflections on the implementation and results of the course

I am overall satisfied of how the students progressed during the course.
Of the 36 students who did the final exam, 35 (97%) passed the course at first attempt.
Students were encouraged to learn throughout the course using supervised and unsupervised exercises, weekly practice quizzes, weekly DICE and related quizzes, and weekly reviews. Accumulating up to 40 points during the course was appreciated by the students.
The final exam (up to 60 points) was covering the ability to derive and interpret statistical inference based on regression models. The structure of the course can bring forward a large and heterogenous class of students. The course is structured in a way to balance and facilitate the connection between statistical reasoning, the specification of statistical models coupled with a careful plan of a study, and a careful interpretation of its results.

Course leader's conclusions and suggestions for improvement

Most of the students participated during the weekly activities and accumulated most of the points available (max of 40 points)

The points accumulated during the 4 pre/post DICE quizzes were positively and strongly associated with the points blinded assigned to the final exam.

The newly introduced learning activity DICE will be kept in future occasions.

The pre/post DICE quizzes, that caused several complaints, will be removed.

Other comments