Course analysis
Research: Theory, Method, Practice (FDD3001)

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No. of students registered: 18

The goal of this course gives PhD students an insight into the process of science. It is essential that PhD students are aware of the limitation of their methods and various pitfalls that arise due to cognitive biases. In addition, we aim to inform them of the various soft skills needed to develop as a scientist. Finally, we make them aware of ethical issues and their responsibility as a researcher. Most of this is done through lectures, discussions, and written assignments. The course is offered twice a year, with each cohort consisting of ~20 students.

Key Challenge

Challenge	Our approach
Student assignments: As a part of the course students write weekly assignments on a topic related to the one discussed in the formal lecture setting. Students get 1 week to finish the assignment and another week to do a peer-review on the assignments of others. Only a fraction of students finishes their assignment in time.	I have no idea how to resolve this other than to remind the students that meeting deadline is a good work ethic that they will need throughout their life. I cannot fail the students as they will come back at another time. I am essentially forced to grade their assignments as and when they can submit as the grade in this course affects their graduation.
Student engagement in the course: Only a handful students participate in the discussion, even though we make it clear that everyone must contribute to the discussion.	One way I try to enforce some inter-student interaction is via peer-review on written assignments. At least then they have an opportunity to read what other have to say and they can in fact respond in the comment box.
Course relevance: Most students find this course interesting but not relevant. And this is true that with the course we are not helping them solve any real problem. Sometime students are also very myopic in their view that they think most of the issues to not relate to their own research.	I am luck in the sense that course is mandatory, so students have no option. In last two editions of the course, I have introduce a Hypothesis Reject assignment. For this assignment, student identify a hypothesis in their respective field of research and present what led to the hypothesis and its eventual rejections. This has been very successful except in some cases students have taken irrelevant topics such as homeopathy. A big challenge for this assignment is the time needed to have all students present their hypothesis.

For this course I keep an open mind and adapt the discussion and contents according to the students composition. Usually at the end students do not mention anything they may have missed.

I have not added the course feedback because I think that the feedback is useless. First, only a handful of students respond, and they are usually not the representative samples. I once received rather harsh feedback from a student (as a comment to LEQ) and I discussed it with my colleagues, and they simply advised me to ignore that. Second, the questions that we have in the standard LEQ are pretty much meaningless. I would like to revise that but to hope that same questionnaire can apply to every course is a fallacy. I prefer to take feedback from students who are regular in the course, and they do provide useful feedback which reflects in our teaching on lecture-by-lecture basis.